Methodology 5.4. Hivo Antwerp 1981-1982
Introduction to Philosophy; Part IV methodology

Bookmark: see p. 16

Bibliographic sample .
General:
-- *M. Wijvekate, Methods of research*, Utr./Antw., 1971;
-- *I. Bochenski, Philosophical methods in modern science*, Utr./Antw., 1961;
-- *id., The Logic of Religion*, New York, 1965 (applies to religious language, esp. pp. 126ss. (*Theories of justification*));
-- *I. Copi, Introduction to Logic*, New York/ London, 1972[4] (*I. Language, II. Deduction, III. Induction*);
-- *H. Leonard, Principles of Reasoning* (*An Introduction to Logic, Methodology, and the Theory of Signs*), New York, 1967² (including language, theory of terms (terminology), theory of definition, theory of derivation);

Subject Matter:
(i) -- *G. Squires, Physical experimentation*, Utr./Antw., 1972 (for those doing experimental work: statistical processing of observations, experimental methods, annotation and computation, publication);
-- *A. Allison et al, Recent development in the natural sciences*, Utr./Antw., 1966 (twelve subproblems in biological science);

(ii) -- *A. De Groot, Methodology* (*Foundations of research and thought in the behavioral sciences*), The Hague, 1961 ('n very solid work:1972[7]);
-- *C. van Pareren/ J. van der Bend, ed., Psychology and the Human Image*,- Baarn, 1979 (*behaviorist, cognitive, psychoanalytic, 'humanist' and Marxist-dialectic methods in psychology*);
-- *H.Hartmann, Empirical Social Research*, Utr./Antw., 1973 (solid work for scientifically minded people on sociological phenomena);
-- *L. Rademaker/ H. Bergman, Sociological Currents*, Utr./Antw., 1977 (positivist, 'functional', conflictuological, phenomenological, symbolic-interactionist, ethnomethodological, systems theoretical, rulemaking, Marxist-dialectical, 'critical', 'critical-rationalist' methods in sociology):

Philosophical:
-- *A. Cresson, Les systèmes philosophiques*, Paris, 1935 (scientist-naturalist, spiritualist, idealist, agnostic and fideist methods);
-- *J. Butler, Four Philosophies and their practice in Education and Religion*, New York, Evanston, London, 1968-3 (epistemological: naturalistic, idealistic, realist, pragmatist, existentialist, and language-analytic methods);
-- *E. Rogge, Axiomatik alles möglichen Philosophierens*; (*Das grundsätzliche Sprechen der Logistik, der Sprachkritik und der Lebenphilosophie*), Meisenheim/ Glan, 1950;
-- *P. Kurtz, Decision and the Condition of Man*, Seattle, 1965 (reconciling naturalism, language analysis, and existentialism : fascinating. is pp.19/84 (The Logic of Coduction).

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After "an introduction to motive, intent, and historical and teleonomic explanations of facts," the author discusses:

(i) ***reductionism***, which, in its physicalist form, reduces psychological and biological phenomena to physical (physico-chemical) laws and, in its individualist form, reduces social phenomena to psychological and biological laws, which are peculiar to the individual human being (o.c., pp. 70/74);

(ii) ***holism***, which rejects both reductions and asserts that reality consists of different 'levels', levels of reality such that autonomous, higher levels are not reducible to lower ones and, diachronically-evolutionary, that there is not merely evolution, but emergent evolution (Lloyd Worgan, Sam. Alexander) such that from 'time-space' (matter) a chemical and from it a life, mind, social and cultural level evolved;

This 'holistic' view is advocated mainly by functionalists, phenomenologists and even by language analysts (o.c., pp. 74/75);

(iii) ***coductionism*** (the author's view) asserts that both, and reductionism and holism, represent valid understandings and thus 'a reconciliation is required');

-- *K.-O. Apel, Szientistik, Hermeneutik, Ideologiekritik(Entwurf einer Wissenschaftslehre in erkenntnisanthropologischer Sicht*, in K. Apel e.a. *Hermeneutik und Ideologie-kritik*, Fankf. a. M. , 1971, s. 7/44 (scientistics (neo-positivist especially) and hermeneutics (cf. Dilthey's 'verstehende' method) are complementary; both must pass through ideology-criticism, - which is thus also 'coductive' or 'conciliatory' but German of mentality);

-- *W. Hirsch, Ueber die Grundlagen einer universalen Methode der Philosophie*, Bad Homburg, 1969.

Introduction.

"Methodology is (...) the theory of the application of the logical laws to the various domains." (*I. Bochenski, Philosophical methods in mod. law*., p. 19),

Put more sharply, methodology arises from the fusion of epistemology, which studies the knowing contact with reality (the different domains of reality), and logic, which checks the validity of implications (inheritances). This allows us to make it short.

I. ***The relationship between prescientific and scientific method.***

Bibliogr. sample:

-- *A. de Waelhens, Existence et signification*, Louvain/ Paris, 1958 (esp. pp. 75ss.), where the author says that from Hegel on, knowing (science, philosophy) is no longer 'a remote explanation of reality, but 'life, having come to full consciousness of itself' Marx, Kierkegaard, Nietzsche, Bergson, et al. practiced one form or another of it).

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-- *H. Arvon, La philosophie allemande*, Paris, 1970, pp. 17/67 (*L' irrationalisme*, beginning with J. Schelling (1775/1854)), pp. 133/183 (*De la phénoménologie à la philosophie existentielle*,- certainly the existentialist way of thinking is 'a kind of life thinking), pp. 69/108 (*La pensée dialectique*,- beginning with Hegel (1770/1831), pp. 116/120 (*L' herméneutique*): the ' positive' method of Schelling, the ' existential' of Kierkegaard, the ' dialectic' of Hegel and Marx, the ' hermeneutic' of Schleiermacher and Dilthey,-they are all one form or another of 'life' coming to consciousness of itself, as de Waelhens says;

-- *G.E. Moore, Defence of Common Sense*, in *Contemporary British Philosophy*, 1925, recalled a kind of "commonsensism": the common certainties of humanity (or even of large groups of people) should not so much be questioned as analyzed; the "Scottish Philosophy" (Th. Reid (1710/1786) and others) was also a commonsensism, reacting against the artificial premises of modern rationalism (Descartes, Locke).) was also a commonsensism, which reacted against the artificial starting points of modern rationalism (Descartes, Locke): all people, educated or illiterate, have a common set of certainties (e.g. concerning the objective reality of the essentials of our existence in the world); also CS. Peirce was a 'critical commonsensist' (cfr. *W. B. Gallie, Peirce and Pragmatism*, New York, 1966, pp. 158ff.: esp. irresistible convictions, instinctively present in just about everyone, affect the pragmatist's need to think communally (and not merely introspectively and individually); cfr. also *K.-O. Apel, CS Peirce, Schriften*, 11, S. 447:455 (*Pragmatizismus und kritischer Commonsensis-mus*).

Peirce's propositions concerning even' and '(knowing) thinking' contain two aspects that interest us here.

(i) "Peirce started from the notion of a human being as a living being capable of thought. He started from the concrete individual and from the fact that thinking is provoked by a certain occasion, takes place in a situation, is localized (...).

This implies that the why, the where and the when of thinking is decisive. The mind is no longer understood as a timeless observer. Thinking is now understood in terms of its purpose in life. And this purpose is called: to label as true. The means to this end is hell thinking". (*Kl. Oehler, ed., CS. Peirce, Ueber die klarheit unserer Gedanken*, Fr. a. M. , 1968, S. 103).

Here Peirce's emphasis falls on the "faculty of divining the ways of Nature," the capacity in man to "guess" the "ways" of "nature" (e.g., in his *Instinct and Abduction*) (o.c., 116), i.e., to probe nature abductively (through fruitful hypotheses). Peirce's critical commonsensism assumes that there is such a thing as instinct, i.e. something that is error-free fallible, in its own domain.

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Such vague beliefs, which look unquestionable, have the same type of foundation as scientific beliefs: namely, they are based on experience, on the comprehensive daily experience of many generations of many peoples.

Such an experience is without value for differentiated scientific aims (...), although all science, without being usually aware of it, in fact presupposes the truth of the vague results of prescientific thinking concerning everyday experience." (o.c., 122/123).

(i) ***The four methods, according to Peirce, by which man substantiates his beliefs:***

a/ ***The method of tenacity,***

the stubbornness method: the answer to a question is given in such a way that everything that substantiates a preconceived opinion (with the elimination of everything that undermines it:- many people cling to it in this way) is constantly repeated; one simply holds one's own conviction for "the" truth and adheres to it rigidly;

b/ ***the method of authority,***

the authority method: what the obstinacy or stubbornness method does individually, the authority method does collectively; that the others think like me is reassuring; 'one' thinks this way; Rome, both pagan and ecclesiastical, in order to promote 'a kind of de facto universality, liked to do it this way; wherever group interests are at stake, that's where the authoritarian method pops up; all that thinks or believes differently is banished as 'undermining';

c/ ***the method of apriory (the apriory method),***

the predetermination method: this method of discussion lets the personal predilection work, but in such a way that, about this, one argues among oneself; Peirce gives as examples Descartes, Leibniz, Kant, Hegel; - one escapes the autistic structure of the stubborn method as well as the external pressure of the authoritarian method, but one remains stuck in the subjective predilections; philosophy in particular suffers from this;

d/ ***the method of external permanency,***

The method of external permanence: Peirce defines 'reality' as that which, in its properties, is independent of whatever anyone thinks of it (How to Make Our Ideas Clear, IV, 406; *Kl. Oehler*, o.c., S. 80); consequence: that which is repeatedly (permanently) identical to whoever acts upon it is real; this is the scientific method (cfr. *E. Walther, CS. Peirce, Die Festigung der Ueberzeugung und andere Schriften*, Baden-Baden, s.d., S. 49/58; i.e. from *The Fixation of Belief*, in *Popular Science Monthly*, 12 (1877), pp. 1/15; Kl. Oehler, o.c., S. 105/110).

Unnoticed be that, even among scientists, the four methods are at work, even if they do not want to know this, yet that the scientific method, in the long run, is the only valid one."

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One can compare Peirce 's position with Karl Popper 's advocacy of an "open" society (under non-authoritarianism).

One may also compare his list of four methods with I. Bochenski's differential: **(1)** blind -jump theory; **(2)** moderate rationalism; **(3)** utter1 rationalism (either one renounces all rational justification or one accepts rational argument alongside irrational motives or one is exclusively rational minded; both extremes seem to us to be virtually non-existent); cf. *I. Bochenski, The Logic of Religion*, pp. 126ss.

II. *The scientific method.*

Relying on what has been said in logic about ab-, de- and induction, we can assert that the first three methods have at best abductive value: stubborn and opinionated, authoritarian and collectivist and a-priority minded people may possess wonderful insights, yet, methodologically, they are merely hypotheses (abductions) awaiting deductive and inductive verification, nothing more.

Indeed, abduction consists in studying facts and developing a theory (explanation), which gives a (necessary and) sufficient reason or ground (called an explanation, usually) for those established facts (principle of "sufficient reason or ground": separately necessary and jointly sufficient reasons or grounds alone make something (those facts) intelligible).

Abduction is creative: it really creates new ideas; after all, deduction only derives the necessary inferences, and induction specifies the value of ab and deduction based on the facts. Peirce outlines it as follows:

The surprising fact F is observed;
The reaction of our mind is: if R is the necessary and sufficient reason or ground of F, then F no longer surprises but is 'self-evident', 'understandable'; this is the abductive phase;

If R is correct, then F, taken up again in a proof (self-efficacy principle: if I act according to R, then a new fact F' will follow), should emerge in F' in new form (deductive and inductive aspect);

This shows whether, yes or no, R is correct, i.e., correct with new, experimental or verifying facts.

".Thus, induction is 'a method of proof that assumes **(i)** hypotheses and **(ii)** predictions about the results of possible experiments'" (Kl. Oehler, o.c., S. 115).

"Here lies, I think, 'a form of the 'hermeneutic circle' described by Dilthey or (to speak with Hegel) of the dialectical 'mediation' before us." (*K.O. Apel, CS Peirce, Writings*, I, S.140). Indeed, not only does one indicate F (fact), but one anticipates in this deductive-inductive interpretation future facts, which will give a definitive answer to the already

or not correctness of that interpretation. Hegel, Dilthey speak of interpreting or 'mediating'; Peirce speaks of interpreting or 'mediating', which are tested inclusively. To interpret, to 'mediate' is to advance hypotheses, to test induction interpretations, mediations against new facts. That is the 'fruitful circle' of ab- de- and inductive interpretation.

IIA. ***Accountability or proof theory.***

The 'scientific' method, relying on external permanence, preferably jointly established, thus contains 'a justification or 'justification'.

I. Bochenski, The Logic of Religion, p. 118, says: We call 'justification' (argument, argumentation) that activity by which 'a (meaningful) statement is justified'.

Typology of Discourses.

In his philosophical methods in modern science, pp. 25/26, Bochensky distinguishes two main types or types of accountability:

(i) ***direct*** (under which he ranks Husserlian phenomenology, also in its existential application) and

(ii) ***indirect***, (under which he ranks the semiotic (= language analytic) method (reality is analyzed through the language signs), as well as the deductive (axiomatic) and the reductive (empirical) methods).

In his *Logic of Religion*, p. 118s., *Bochenski* repeats this dichotomy, adding that the direct method relies on the presence of its object, which in 'an insight, sensuous ('I see smoke rising there') or non-sensuous ('I see that ready in') is directly reached, while the indirect method, in the absence of its object, is obliged to 'reason'.

Conclusion:

There are three fundamental ways in which one can account for a statement "by insight, by understanding (directly), by deduction, or by reduction" (o.c., p. 123).

Typology of Indirect Arguments.

I. Bochenski , o.c. 120, corrects Aristotle by Jevons and Lukasiewicz, who argue that there are two types of argument, deduction and reduction:

deduction: if p, then q, well p, therefore q;
reduction: if p, then q, well q, therefore p. (See Logic, pp. 73, 74).

Reduction has **a/** explanation (see abduction) and **b/** 'verification' (see de- and inductive control following abduction), common in both the natural and the humanities, though in a modified way. Science typically contains both explanation and verification. Think of De Groot's cycle of experience in his methodology.

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K. Popper, Poverty of Historicism, London, 1957, p. "132, says:

"In science, it is always about statements, predictions and tests (...). From the hypothesis to be tested, e.g., a universal law, together with some other statements, which, in this case, do not pose any problems, e.g., some initial conditions (of scientific work), we derive some kind of prognosis (prediction).-Then we confront this prognosis, in any case, with the results of either experimental or other observations.

Agreement of the hypothesis with it is recorded as reinforcement of the hypothesis; clear absence of agreement with it is considered refutation or 'falsification' (falsity proof)."

Note -- About statement.

-- *S. Cannavo, Nomic Inference*, The Hague, 1974 (strongly linguistic analyst, this book is concerned with 'nomic derivation', of which, in its language, explanation is only one type);

-- *E. Nagel, The structure of Science*, 1961 (talks about explanation, among other things: he holds the "how" and the "why" to be inseparable; distinguishes deductive, probabilistic (statis-tic), teleological (functional), and genetic (e.g., historical) types of explanation;

Bochenski, Philosophical Methods, p. 140 ff., also distinguishes "a plurality of 'explanations'":

a/ konkomitant and functional, **b/** unconditional and statistical, **c/** causal (causal) and teleological explanations).-

This ultra-short list shows that explaining is a lot more than causally explaining (which used to be thought more than once).

Note -- Concerning verification.

I. Bochenski, Philosophical Methods, p. 77, lists, according to Reichenbach, the four major types of testing:

a/ logical verification (some closed proof),

b/ empirical verification (through 'tangible' facts); twofold:

(i) physical (the solar temperature can be determined physically, but is not technically feasible);

(ii) technical (the speed of light can be measured with technical equipment),

c/ transempirical (the existence of the immortal soul is verifiable by appropriate means);

It is especially by this latter method of testing that one moves away from traditional secularist materialism and even positivism, which is exclusive in this field: it is true that a question, to which there is only an answer that cannot be tested by 'experience', is a sham question, as the positivists claim; the whole question is: what 'is' 'experience'? There are experiences which, for non-biased minds, clearly point to the existence of transempirical facts, but 'experiences' which differ from the flat type with which some positivists (and neo-positivists):come trotting out as the only valid one (which is ideology and not science).

ME. 8.

Bibliographic Sample:

(i) *Historical:*

-- *A. Farges, La crise de la certitude* (*Etude des bases de la connaissance et de la croyance*), Paris, 197 (this kriteriological work, though old, is still valuable: the direct (insight, sense or ideal) and the indirect methods (deduction; reduction (authority argument, induction)) are thoroughly discussed);

-- *Ch. Lahr, Logique,* Paris, 1933, pp. 533/659 (*Logique appliquée ou méthodologie*: science and sciences, general methodology, special methodology (mathematical, natural and human science methodologies);

(ii) *Current:*

-- *Barzin et al, Démonstration, vérification, justification* (*Entretiens de l' Institut International de Philosophie*, Liège, septembre 1967), Louvain/ Paris, 1969 (including *McKeon, Discourse, Demonstration, Verification, and Justification;*

-- *H. Bunge, La vérification des théories scientifiques;*

-- *J. Vuillemin, Mesure, vérification, langage;*

-- *G. Granger, Vérification et justification comme auxiliaires de la démonstration;*

-- *T. Kotarbinski, La justification active,* etc.);

-- *G. Pappas, ed., Justification and Knowledge* (New Studies in Epistemology), Dordrecht, 1979 (essays on epistemological justification by such proposers as Lehrer, Sosa, Goldman, Swain, Pappas, Chisholm, Cornman, Pollock, Pastin, Sellars, Firth, Kelsik);

Concerning the differential 'irrationalism (jump theory)/ rationalism (partial or total reasonable justification) see:

-- *W. Bartley, Flucht ins Engagement* (*Versuch einer Theorie des offenen Geistes*, Munich, 1962 (reckoning with some main figures of more recent Protestant theology (K. Barth, E. Brunner, R. Niebuhr, P. Tillich et al, who claim that the rationalist too has rationally unjustifiable (and unaccountable) premises, as do they (who honestly admit that they take 'an irrational leap' to 'believe')),- yet Bartley himself, outspoken rationalist, in the spirit of Karl Popper, admits that the rationalism of Descartes and Locke is 'a program rather than an implemented rationa-lism, at least to date: does the 'irrationalist' give up the last rational justification, the rationalist à la Bartley precisely does not give it up, even if he does not yet possess it).

IIB. *Four main types of method.*

We will now briefly discuss Bochenski's fourfold division. With the exception of one remark: the language-analytical (semiotic or sign-theoretic) method, the deductive (axiomatic) method, as well as (among the direct methods) the phenomenological - existential method, - they are all actually abductively and de- and inductively structured in its emergence.

Indeed, the language analyst, at a certain point, sees, in the midst of his sign-analytic labor, "a way out" (abduction, explanation, hypothesis), which he then includes in his

published text in elaborated (a.o. and esp. verification (containing de- and inductive data)) form before the reader (i.e. what the reader of such a semiotic work sees does not look reductive (ab-, as well as de- and inductive (explaining and verifying)), but is (if successful);

The same for a book of formalized (axiomatic) logics, mathematics or empirical - scientific theory: at some point its author had an 'intuitive-naive' insight (abduction or explanation); quickly he sets to work and begins to deduce and derive the symbol sequences axiomatically: the result is (de- and inductively worked out, the verification) decisive (he then has 'the test on the sum' whether his 'intuition' (hypothetical insight) was correct or not; if satisfied, he publishes this: the reader sees only the de- and inductive 'test on the sum' (unless he, in the introduction e.g., tells how and when he had the initial intuitions, because then he tells his 'abductive phase' too).

However, the phenomenologist also 'sees' ('beholds', as phenomenologists like to say) the essence of what he is investigating, globally, at a certain moment: *F.Buytendijk, Het voetballen*, (playing socce), in *Tijdschr.v. Fil*, 13 (1951): 3, p. 391/ 417, e.g. certainly has his 'n intuitions (i.e. the global initial insights, i.e. his abductive insight or explanation) on the square; afterwards he 'writes out his text', which exposes a phenomenon (here: soccer) in its 'essence' (eidos, beingness, essence); by the result, the written text, Buytendijk (and the readers of his text) measures whether the intuition is 'valid', i.e. verifiable, or not.

Fr. Bochenski gives virtually no consideration to the process by which science (as well as pre-scientific knowledge and justification) comes into being;

Peirce, on the other hand, does: for him science is a process, and an explanatory (hypothetical or abductive) and testing (de- and inductive) process at that, even if the text does not show it so immediately. The text is result; it is not the process itself unless in solidified form.

IIba. ***The semiotic or language analytic method***.

See *Bochenski, Wis. Methd*., p. 45/89; since the doctrine of signs has already been set forth in Part II (epist.: doctrine of interpretation, esp. p. 7vv.), we refer to that text there.

One observation:

F. Bochenski, The Logic of Religion, pp. 121ff. treats the authority argument semiotically, linguistically. Indeed, e. g. the texts of the Bible are 'a language (speaking) about God e.d.m.:

(i) God, etc. is the zero stage;

(ii) speaking (recorded in the Bible text about God and such) is first semiotic stage or object language (direct speech);

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(iii) speaking (the language, the text) about that object language or direct (language) speech is meta-language (if you will: 'language about the language' (and no longer about the being or things and processes)).

See above pp. 15/17 (semantic language stages, compared with the intentionality theory of scholasticism). Well, what the church says about (the value of) the biblical texts or what the theologians and exegetes say about that first language about God and related, is meta-language.

The authority argument is also, in this case, **(i)** a text (object language) **(ii)** with a contextual property (see above p. 81 (text and context): one has, in ecclesiastical circles, and the Bible (text) and the (authority) context, i.e. a series of statements about the (value of that) text (infallibility a.o.).

Short and learned:

'semiotically or linguistically' - said: there is 'one objective and one meta-language side to church talk about God and related. For the rest see p. 76 (authority argument inductively).

IIBb. ***The deductive or axiomatic method.***

See *Bochenski, Philosophy Methods*, pp. 91/124.

Since we have already, in Logic, pp. 92/103 (esp. p. 100vv. (formalization, i.e., symbolization and axiomatization and operationalization)), have briefly outlined the axiomatic method, we refer there. Cfr. *H. Barraud, Gcience et phil*., Louvain/ Paris.

IIBc. The experimental method.

See *Bochenski, Wis. Meth*., pp. 125/171 (The reductive methods).

Since, in Part I (epistemology), pp. 12/15, 'a very brief outline has been given of what the structure of hard (experimental, indeed, operationalist) science is, we refer to that applicative model.

We repeat here again the structure methodologically.

(i) ***Observational or observation part:***

one establishes a surprising fact, a strange or unexplained fact: these are the initial 'data' or information of sensory experience, always 'public', i.e. accessible to all who wish to investigate (the group and exemplary character; cf. Th. Kuhn);

(ii) ***Descriptive or descriptive stage:***

the first thing the experimenter does, in an operationalist sense, is to establish a taxinomy, a system of concepts, which contains his vocabulary or terminology, and to do so in such a way that the words are defined in such a way that they are testable in experimental tests (not vague language) and do not give rise to any kind of misunderstanding in the environment of the researchers;

(iii) ***Hypothetical or explanatory stage.***

The fact observed and described in solied-operational language is assigned its necessary and sufficient conditions ("reasons or grounds"), making it "understandable," "logically" intelligible;

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In other words, the 'lemma', platonic language would say (the 'abduction' in peircian language) formulates the separately necessary and jointly sufficient conditions, under which the observed fact, operationally articulated, becomes logically explainable (and thus no longer 'surprises', 'alienates');

(iv) ***Verification or review stage:***

One deduces from the hypothesis postulated (lemma, abduction) conclusions such that they are usable (operational) in an experiment on its sum (deductive control or 'analysis' (in Platonic language)); - one sets up the experiment, faithfully representing the hypothesis: the result (outcome) decides (if affirmative: verification; if negative: 'falsification') (inductive control on 'analysis'), m.In other words, one induces and verifies the logical implications of the hypothesis.

Bibliographic Notes:

-- *A. De Groot, Methodology*, 1972[7], p. 29vv. describes this as the "empirical cycle" or experiential cycle of (experimental) science.

Cfr. also: -- *D.Bronstein et al, Basic Problems of Philosophy*, Prentice-Hall, N.J., 1964[3], pp. 1/63 (*Methodology*; e.g. *Cl. Bernard, The Experimental Method*);

-- *A. Cornelius Benjamin, Operationism*, Springfield (Ill.), 1955;

-- *Bridgman, Logic of modern Physics*, New York, 1927; as an application e.g. *R. Pinxten, The notion of 'concept' in cognitive psychology*, in *Philosophica Gandensia*, New Series, 10 (1972), pp. 14/42 (the notion of 'concept' is operationally described to get out of the morass of conceptual descriptions of a traditional nature).

IIBd. ***The direct method.***

See *Bochenski, Wijsg. meth.*, p. 27/44 (The phenomenological method); See Part II (theory of interpretation), p. 3vv. (structure of consciousness); see above p. 15vv. (Intentio doctrine).

Bibliogr. sample:

-- *H. Bakker, The history of phenomenological thought*, Utr./Antw., 1964 (Husserl, Scheler, Heidegger, Sartre, Merleau-Ponty);

-- *A. Tymieniecka, Phenomenology and Science in Contemporary European thought*, New York/Toronto, 1962 (phenomenogy à la Husserl with applications to knowledge of fellow man (Jaspers) and the world (Heidegger).

The essence comes down to this: starting from reality as it presents itself, purely phenomenally, i.e. without taking into account tradition or theories, with even its actual existence, in consciousness (understood intentionally, i.e. as an encounter of 'I' with 'a given or object'), directly to be seen and 'witnessed' (as the phenomenologists like to say), the phenomenon describer tries to capture 'an understanding of beings in words according to a number of rules.

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The ideal object of phenomenology are the experiences of man and fellow man: playing soccer (notice the verb: not playing soccer as a system, but playing soccer as an experience), as in Buytendijk's article cited above;

-- *G. Marcel, Homo viator*, Paris, 1944, pp. 39/91 (*Esquisse d' une phénoménologie et d' une métaphysique de l' espérance*), gives 'n phenomenology of hope, i.e. of hoping as experience ('expérience vécue', 'Erlebnis');

-- *G. van der Leeuw, Phänomenologie der Religion*, Tübingen, 1956[2], gives a phenomenology of religion: successively **a/** the object (the 'power'), **b/** the subject (the 'holy') man, the 'holy' community, the 'holy' in man (i.e. the soul as the power-bearing aspect of man), **c/** the object and the subject in their interaction with each other (external and internal action), **d/** the 'world', **e/** the 'Gestalten' or 'forms' (religions and founders of religions) described in their 'phenom character'; at the end, s. 768/777, v.d. Leeuw gives his 'method':

(i) First, 'an observed fact (here: religion),
(ii) Naming (terminology phase),
(iii) the auto-implicative phase (one engages religion in one's life, to experience it, to live it through,
(iv) the description of essence (via 'epochè' or parenthesis) and of metaphysical and of positive-scientific propositions concerning religion (the 'eidetic' or essence-describing phase),
(v) the "apperceptive" phase, which sees the phenomenon of "religion" in coherences (not the narrowly causal of the professional scientist or the stultifying of the metaphysician), -- naming, experiencing, describing beings, and describing coherences together make up understanding (verstehen),
(vi) finally, the corrective phase: the phenomenologist consults philology and archaeology, for example, to polish his insights; -- thus the 'sense' or 'meaning' of a phenomenon (here: religion) is exposed. One sees that, in contrast to 'some' 'flat' (neo-) positivists or operation(al)ists with their disdain for the direct and phenomenological method, this method is indeed 'firmly' structured.

Bibliographic Sample:

-- *A. de Waelhens, Existence et signification*, Louvain/ Paris, /1953, esp. pp. 75ss. (Signification de la phénoménologie), where the "explication of experience" is discussed; -- one feels that the phenomenology thus practiced comes very close to one kind of psychology, namely, as a science of the subject in its experiences (see o.c., pp. 110ss.).

IIBda. *Hermeneutic method.*

Phenomenology runs, at a certain point, in tandem with hermeneutics, i.e., the interpretive description of signs; cf. *O. Pöggeler et al, Hermeneutische Philosophie*, Munich, 1972 (Pöggeler, Dilthey, Heidegger, Bollnow, Gadamer, Ritter, Becker, Apel, Habermas, Ricoeur): one "meets" the object through its expressions or signs.

This immediately raises the question of the boundedness of the direct nature of the "direct" method:

(i) there is apparently much indirectness in the direct method;

(ii) *K.- O. Apel, CS Peirce, Writings*, II, S. 159ff., talks about the relation, according to Peirce, between perception and interpretation: all perception is, from the outset, already (un)consciously interpretation;

Consequence: it is not surprising that the direct method is 'hermeneutic' i.e. interpretation! The 'insight' that Bochenski conceives as typical of the direct method (sensuous, ideal), - the 'beholding' of the being of Husserl et al. (or being intuition), - all that is already interpretive insight, interpretive beholding.

It should be noted that the depth psychologists have emphasized the interpretative character: e.g. there are over-determined phenomena ('a symptom, e.g. 'a hysterical paralysis, 'a dream, 'a slip, which reveal 'the unconscious' via those 'signs'), i.e. there is a plurality of factors at work or they are internally related (complex): over-determination is, in more than one case, necessary, i.e. after a first seemingly coherent interpretation, a second, also meaningful interpretation forces itself upon us due to over-determination.

Well, what experiences are not somewhere of that nature and clarity?

IIBdb. ***The "understanding" method.***

One of the best explanations of the 'Verstehen' (Dilthey), standing in contrast to the mere 'Erklären' (explaining), gives *Ph. Kohnstamm, Personality in the Making*, Haarlem, 1929, p. 11/21 (Understanding as a Scientific Method).

(1) ***Two movements as observed facts*** (observational phase).

(i) If one looks through a microscope at pollen grains floating in a liquid, they 'dance' up and down (Brownian motion); a hundred years after the botanist Brown noticed this, physics comes up with a problem and a hypothesis with verification;

(ii) If one looks, in a dance hall, at the youth, who dance disco and punk, one sees "an up and down" but of a different nature, apparently: here, too, one can formulate a hypothesis with verification to "explain" or "understand" this "peculiar behavior".

(2) ***Two explanation types***.

See above p. 2: the reductionist will, in the long run, try to reduce the dance movement to physical and chemical reactions to stimuli (involving the nervous system, etc.); in this way he scales down the difference in level between the brownish movement and the disco and punk dance movement; the holist, on the other hand, sharply delineates the reality type and level of human behavior against the brownish movement of pollen particles;

Result: two different approaches with two different abductions and verifications,

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The one called the "natural scientific" explanation (what Dilthey would have called "Erklären"), the other the "spiritual scientific" explanation (what Dilthey would have called "verstehen", to understand). According to Kurtz' 'koductive' view, the reductionist and the holistic complement each other,- which we also believe.

(3) ***The understanding method.***

(i) ***First aspect; the co-experience.***

I can engage in 'participating observation' or proceed interna-listically, i.e. I let myself be involved in the matter (=/remain at an externalist distance): e.g. I immerse myself in the atmosphere of the disco and punk dancers, in the hall itself; I talk to them; yes, I dance along, read the magazines about them which the young people read, etc., all this with minimal 'sympathy' or bias.

Put more bluntly: I share the same experience in a common sharing of it; I sympathize with them, not only externally, but with their introspective and retrospective experience ("Do you remember: what a nice dance that night?"). - As Kohnstamm says, every language experience is already a joint experience of more than one individual of the same language content.

(ii) ***Second aspect: understanding fellow human beings.***

a/ To understand is not 'comprendre, c'est tout pardonner', i.e. complicity; the 'identification' does not go so far as to have no evaluation or value judgment of its own; I do see, to speak with Schopenhauer, the dancers in the hall as 'Ich-noch-einmal' (I-not again), certainly not as purely 'Nicht-Ich' (I not), but still there is detachment.

b/ Understanding is more than pure perception: apart from observation in the dull sense, perception, it is also 'apperception', i.e. situational perception; i.e. I situate the phenomenon, in which I take part, in a broader framework, as a member of a collection, as part of a system (e.g. it is a time phenomenon (part of the subculture of youth), a kind of dance (private case of a general phenomenon 'dance');

Consequence: not only do I take distance from the dancers, but also from myself; for if I do not take distance from myself, then I can fall into self-deception (just as many a young person gets carried away with the 'intoxication' of the disco and punk atmosphere, without any reflective resistance). 'Understanding' is, after all, knowledge acquisition and not blissful absorption.

Technically expressed: to explain a system, called disco- and punk dance, DPD, (and to verify its explanation by induction), I do not only deal with DPD, but first of all with myself, I (and what goes on in it similar to system DPD): through system I (myself) I 'know', I explain, I verify system DPD, while I also directly perceive DPD.

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(4) ***Comparison:***

(i) The naming, perception, essence and connection description, which is the phenomenological beholding of one's own experience, is present here; with or without the corrective side;

(ii) The hermeneutic interpretation of expression is here, laterally, present in the observation of the behavior of, the (fellow) dancers (how they laugh, with whom they dance, what they drink, etc.);

(iii) The four stages of experimental behaviour, viz. observation, description by terms, hypothesis (at a certain moment I form a (provisional) idea and explanation of the DPD system), verification (I become aware in time whether my abductive hypothetical view of the DPD phenomenon is correct), are present here, in their own way. Consequence: a number of people reduce the understanding method to one of the three aforementioned.

Yet this is not true, at least not entirely.

The understanding method has, in addition to the presuppositions (axiomata, a-priori, premises) of the three previous methods, one aspect that is specific, namely, the substantiality of my (inner and participatory) experience of the dancers (system DPD).

The phenomenologist 'is' reflexively identical with himself and his own introspective - retrospective experience (consciousness is always self-consciousness amidst the consciousness of the rest);

The hermeneut does not "is" the signs he is interpreting: they are "an object," which he perceives and "memorializes

Hegel's term to denote -; there is no substantiality, of course;

The experimenter does not "is" his object of, inquiry; nor does he feel substantially with it, at least not in his method itself (which emphasizes the public and operational).

Conclusion: with the phenomenological method there is the greatest resemblance; the understanding method is, after all, a kind of phenomenology of the fellow human being in his inner world, possibly on the basis of substantial similarity; with the other methods there is, of course, resemblance: the understanding method is a knowledge acquiring method like them, but both the phenomenological directness and, above all, the substantiality with the object of knowledge are not there in the hermeneutic and in the experimental method (unless, by chance, they run into each other).

There is also a case of understanding, where there is no strict essentialism at work: there are people who have a remarkable (telepathic) empathy for animals or even plants or objects (one thinks of the drug users who see a stone very differently and as it were identically with the 'seer'; especially sensitives and clairvoyants 'identify' with their object of knowledge. That too is understanding.

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