NEWTON'S FIFTH RULE AND Q METHODOLOGY: APPLICATION TO PSYCHOANALYSIS

William Stephenson
University of Missouri

Abstract. A fundamental empirical basis is provided for psychoanalytic phenomena in terms of Q methodology and Newton's Fifth Rule. It is well known that the analytic concepts of id, ego, superego, unconscious, libido, etc. are classificatory only; genuine explanations have been provided along informational-theoretical lines, by cybernetic-epistemology and theoretical biology. There are constructs in the latter at a basic level, as "constraints," concerning "cognition," "induction," and "self-reference." These constructs are also fundamental in Q: there is a theory and pragmatics for cognition in the subjective domain ("consciring" and the theory of communicability replacing the categorical "consciousness"), also a theory for induction (Newton's Fifth Rule), also a theory for the self (quantum-factor theory). Thus, informational-theoretical and Q conjoin in asserting that at the fundamental level of abstraction, a patient in analysis is expressing "self-descriptions," and that new meanings (inductions) come to the patient implicitly, by way of self-references. The close correspondence of the informational and Q theories warrants

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the conclusion that, at the basic level, Q must have priority as to method over psychoanalysis: the fundamental concern is with implicit functions of the mind (so-called), as natural effects, and not just psychoanalytic explications.

EARLY FORMULATION

Why, it has often been asked, is there no theory of self in psychoanalysis (Levin, 1970)?

The present author asked the question in the early 1950s and wrote a work entitled *Q-methodology and Psychoanalysis* (Stephenson, 1954) as a companion to *The Study of Behavior: Q-technique and Its Methodology* (Stephenson, 1953) which gave answers to the problem of self in both psychoanalysis and existentialism. The work did not find a publisher, but leading psychoanalysts at the time in New York and Washington, D.C. were not unsympathetic to the manuscript, and in 1955 there was a possibility that its thinking could have had opportunity, at the Psychological Center in Bethesda, to find expression in research there, in cooperation with Washington psychoanalysts. A step was taken in a different direction, and this opportunity was lost.

The reasons for the acceptance by psychoanalysts were not insubstantial: In London days, in the 1930s, the author had undertaken psychoanalysis with Melanie Klein, with the intention of pursuing research into psychoanalytic principles. World War II intervened, and it was not until the author went to Chicago in 1948 that he could return to this objective, something of which enters into *The Study of Behavior*, where the "Case of Dora," one of Freud's earliest patients, is examined in the Q-methodological framework (Stephenson, 1953: 97-99, 249-272). Later, there is the "Case of Myra" in Parloff, Stephenson and Perlin (1963) and in Stephenson (1974), and subsequently Binswanger's "Case of Ellen West" was put into our framework (Stephenson, 1974: 8-9). There is also an application of psychoanalytic principles in Stephen-

son (1976), concerning the problem of children and violence on television.

Q methodology has been widely misunderstood as merely a technique (Q) involving Q sorting; it is instead a fundamental body of theory for a scientific approach to subjectivity (Stephenson, 1953). In the 1954 unpublished manuscript, steps were taken to put research in psychoanalysis on modern scientific foundations in two directions, one to stress the creative, *inductive* character of analysis, and the other to recognize that the primary concern is with subjectivity, i.e., the self. It is the purpose of the present paper to carry these developments forward, and to encompass in them certain theoretical questions current in psychoanalytic literature, in particular, application of cybernetic-biological theory to psychoanalytic and neopsychoanalytic theory (Pritz & Mitterauer, 1977; Mitterauer & Pritz, 1978). It will be shown that certain constraints in this information-theoretical approach are resolved in my version of Newton's Fifth Rule (Stephenson, 1979), to the effect that assumptions of "induction," "cognition," and "self-reference" ("self-regulation," "self-description") at the roots of cybernetic-epistemology and theoretical biology are principles intrinsic to Q and Newton's Fifth Rule. The Fifth Rule completes for *induction* what Newton's other four rules have done for deductive methodology (Stephenson, 1979).

Q METHODOLOGY

Q methodology provides a basis for a science of subjectivity, conceived as communicability (Stephenson, 1980b) not consciousness (Stephenson, 1968).

The concern is with "behavioral segments" (Stephenson, 1953). An analyst and patient in an analytic session constitutes a behavioral segment, and it would be studied as such in Q from the centrality of the experiencing participants without having to assume anything about its regularity or representativeness. A segment may be as specific as a particular incident in the analysis, or as all-enveloping as

retrospection on fifty years of one's life. *What is involved, for Q, is the person's self-reflections.* Not, however, merely *impressions* about what went on--that one was under this or that impression about an incident, or ritual, or whatever--but a theoretical position about the place of self-reference in self-reflection.

If we consider, for a moment, that a person's *mind* is at issue, it is assumed, in Q, that the subjectivity is lawful, and that it is shaped in human communicability by language forms especially. Basic to this is *concourse theory* (Stephenson, 1978), in effect that subjective language expands infinitely about itself: there is an infinitude of self-referrable possibilities for each of us, expressible in language or its substitute symbols (pictures, videotape, etc.), about any subjective concept or experience.

Thus, to see rain outside can be a matter for *objective* or for *subjective* communicability. Objectively, there were torrential rains eons before man emerged to see any, and objective science studies such realities for the *information* they provide. Scientific information about rain has the same meaning to all scientists, in any language. Subjectively, however, rain can raise a thousand different meanings in an observer: that you have prayed it would rain, that you enjoy soaking in the rain, that rain-water is good for your skin, etc., all expressions of common experiences, known to everyone, as folklore is known to everyone in a culture, as common knowledge. Thus was born the idea of a "population" or "universe" of self-referent statements about anything (now called "concourses," [Stephenson, 1978]), the basis of Q technique (Stephenson, 1935). Fundamentally, feelings and self-reference are at issue, "inside" the person.

Our theory depends basically upon the concept of *concourse*, as for rain in subjective communication, *ut supra*. New ideas are formed in relation to concourses, by way of feeling and self-reference (Stephenson, 1980b). Much as a choreographer creates a new ballet in tune to Chopin's music, by feeling, so

Q technique is instrumental in creating new ideas in the context of a concourse. The technique calls upon the Q sorter to scale a Q sample of "statements" on a linear scale from *positive* feeling (+) to *negative* (-) with *no* feeling (0) in between. Thus, very different meanings are born in the different feelings for the following statements, differently grouped:

(*a*) (+) Kissing in the rain
(0) Is thunder and lightning;
(-) Its end is sadness.

(*b*) (+) Thunder and lightning
(0) Ends in sadness
(-) And kissing in the rain.

a and *b* are miniature Q sorts. The first, (*a*), has a profound meaning, and truth-value. The second, (*b*), is trite and inconsequential. It is *feeling* which gives rise to the very different meanings of the two arrangements of the same statements.

That subjectivity is lawful presents a challenge: the popular conception is that it is wholly unpredictable. In Q it is considered that the unpredictability is because of the great complexity of self-reflection (and of the behavior it oversees): so many *laws* are involved for any behavioral segment that the upshot is indeed uncertain.

The concept we have of lawfulness, however, is the modern one, of regarding *laws* as instrumental, telling the scientist what to look for in nature, and how to look for it--and not to consider laws as primarily regularities in nature. Thus, in D'Arcy Thompson's classic, *Growth and Form* (1942), many *laws* are employed which are now forgotten, but which played part in the early work on biological form--e.g., *Borelli's law*, that all animals, similarly fashioned, ought to jump to the same actual height (Thompson, 1942: 37), or *Froude's law*, that the bigger the fish the faster it can swim (p. 31). These laws do not guarantee absolute regularities, but information concerning what to look for in nature; they are empirical, based on past observations. Many such laws are

available for use in Q, such as *Roger's law* (that *self* and *ideal* tend to be congruent in adjusted behavior), *Freud's law* (that self is subject to defense mechanisms), *Peirce's law* (that operant factors are schematical), etc. All Q sorts are based upon such *laws*: the conditions of instruction for Q sorts are expressions of known laws.

At the turn of the century physics was facing a problem comparable with this in Q. The state of subatomic particles was quite unpredictable, but by way of quantum theory and quantum mechanics inroads were made into the lawful nature of atomic particles. Using atom smashers, physicists are now discovering hundreds of subatomic particles, all composed of other, more fundamental particles, the quarks (+) and anti-quarks (-) of the nuclear domain. It happens that quantum theory and factor theory (Q) are comparable (Burt, 1940; Stephenson, 1979, 1981a), based on the same mathematics and serving the same purposes, to determine *form* in nature. Factor theory in psychology parallels quantum theory in physics: both depend upon the Theory of Groups, a "kind of super mathematics in which the operations are as unknown as the quantities upon which they operate" (Burt, 1940: 242). Burt added,

> ...it consists of sums in which the mathematician can never know what the sums are about, nor what figures he is working with, nor yet what mathematical operations he is supposed to be performing, nor even whether his operations are mathematical at all. (Burt, 1940: 242, following Bertrand Russell)

Both serve the same end, of permitting probes to be made empirically into complex states of nature, into the nucleus of the atom in physics, and into the jungle of laws that constitute subjectivity in psychology. The object is to elicit natural phenomena, "such as occur in nature without the scientist's interference" as Heisenberg (1975) put the matter with respect to quantum theory. So it is for Q technique: operant factor structures (Stephenson, 1977)

are such "natural phenomena."

Analogies are not to be despised, but more than analogy is at issue for quantum, factor theories, and Q. It is not far-fetched to consider any concourse--of a thousand "statements" about rain, for example--which, when looked over by us, presents a matrix of feeling possibilities, random in the mind. One has available innumerable feelingful juxtapositions of the kind exemplified by kissing in the rain. Performing Q sorts is a way to penetrate into the matrix of these possibilities, whose feasibility depends upon known relationships: these are the *laws* to which I have called attention, all based on previous research or reasonable expectancies. In physics the atom smashing reaches quarks of various forms; in psychology our Q factors are *forms of feeling*, different for different factors.

Quarks are of course physical particles at different energy levels, with "spin," "bottom," "charm," and the like as characteristics: "charm," "strangeness," "bottom" (or "beauty"), "top" (or "truth") are extraordinary terms indeed to describe physical-mathematical properties of the subatomic world! There is nothing so jovial in Q methodology with regard to *feeling*, except for the universal division into positive and negative, the fermion and boson of all nature, quark and anti-quark, pleasure and pain. But Q reaches into the same profound depths of nature, doing so in terms of all Newton's Rules of Reasoning of his *Regulae Philosophandi*. Newton's Four Rules provide the underpinnings for modern natural science in the deductive framework (the hypothetico-deductive methodology), as meticulously described in Karl Popper's *The Logic of Scientific Discovery* (1959)--a work dealing not with discovery but with testability. My version of Newton's Fifth Rule completes what Newton could not have done without knowledge of quantum theory, its concern being with *induction*, i.e., with creations in subjectivity (Stephenson, 1980a). The Fifth Rule, along with the other Four Rules are at the heart of Q methodology, which explains the latter's complete generality as science for all subjectivity.

In particular, as we are now to indicate, certain basic assumptions in cybernetic-epistemology and in theoretical biology are pragmatics in Q.

CURRENT TRENDS IN PSYCHOANALYTIC THEORY

There are two trends to consider in psychoanalytic theory, one an interest in *theory of self*, the other *explanations* of psychoanalytic phenomena in cybernetic-epistemological and theoretical-biological terms.

The former is receiving a good deal of attention, for example in Heinz Kohut's "The Future of Psychoanalysis" (1973), and in articles in *Issues in Ego Psychology* under the rubric of "The Self in Psychoanalytic Theory and Practice" (Kaftal, 1979). One of the articles in *Issues* asks whether the concept of self is necessary (Fenchel); another concerns the self in countertransference (Searles); others deal with the self as character (Barnett), with disorders of the self (Wolf), and with general psychology of self (Richards, Ornstein). All of this is purely categorical (logic), and peripheral to the principles at issue in Freudian psychoanalysis: it was Hartmann (1959: 335) who agreed that self was in principle acceptable in psychoanalytic thinking, but that *self deception* is its chief concern and about which psychoanalysis has prospered.

A more significant trend is an informational-theory direction, to which the name neopsychoanalysis has been given (Pritz & Mitterauer, 1977). This begins by recognizing that the Freudian concepts of unconscious mind, of id, ego, superego, ego-ideal, etc., are classificatory only, and do not offer *explanations* of psychoanalytic phenomena (Basch, 1973): psychoanalytic principles are therefore pursued along information-theoretical lines, with cybernetic-epistemology and theoretical biology to provide genuine explanations (von Foerster, 1967, 1973; Maturana, 1970; Waddington, 1972). Advances in this direction are of a fundamental nature, reaching profoundly into analytic principles. Information science, however, in whatever guise, is necessarily *sans* self-reference in any overt sense: by very definition information

science is cut off from any involvement in subjectivity. Leon Brillouin (1962), in *Science and Information Theory*, notes that the theory "is in no position to investigate the process of thought," the concern being with *facts*, not meanings. Since it is our purpose to bring science to bear on subjectivity, including psychoanalytic phenomena, it is important to examine what the information theorists have to offer at the fundamental levels of cybernetic epistemology and theoretical biology: if the premises of this modern theorizing parallel those of Q, as indeed we shall indicate, then an important conclusion will have been reached, adding weight to the legitimacy of our claim that Q, and Newton's Fifth Rule, are of fundamental proportions.

NEOPSYCHOANALYSIS

As we are all aware, the highest mental processes (as we used to think of them) of intelligence (Turing, 1950), playing chess (Newell, Shaw & Simon, 1963), creating music (Hiller, 1959) and the like are now translated into computer languages, and it can occasion little surprise that the processes and principles of psychoanalysis should suffer the same fate. The principles of identification, internalization, libido, etc. can be transformed into cybernetic-epistemology and theoretical biology. In the process, explanations are found for life-giving and human properties which have hitherto been regarded as mysteries.

The information theorist has to begin at the beginning, which, in the present case, is with "all living things" (Maturana, 1975). In Maturana's theorizing, biological "structures" are "operational themes" (the terms in parenthesis have information-theoretical denotations). The lowly amoeba becomes, in computer language, the "problem-solver," "decision maker," etc., involving "system-wholes" and "organismic organizations." Following Heinz von Foerster (1967), information-processing is intrinsically "inductive" at these origins: to sustain life, organisms from amoeba to man must be able to compute

(predict, construct, infer) future sequences of events. A fundamental principle of "inductive inference" is thus at issue, "the real birthplace of mentality" (Pritz & Mitterauer, 1977: 189): that is...

> ...a "search for meaning" in the sense that (an) animal selects those cues--i.e., that information --from which it can optimally draw inferences;... [there is] a "recourse to self-reference," in the sense that the animal evaluates the inferences drawn from that information always with regard to its utilization favorable to its own self. (Pritz & Mitterauer, 1977: 189)

It may seem that the references to self are metaphorical and not information-theoretical, but that is not the case. The concern is with algorithms, the routines of recording, decision-making, hierarchical controls, feedbacks, etc. "Cognition" becomes "computing reality, with infinite recursionary feedbacks" (von Foerster, 1973). The cybernetic concept (e.g., of a wooden table) is quite distinct from the single object we see: it is cognized as if it were blinking at us, with the flickerings of a movie, infinitely rapidly. Maturana (1970) conceives of "cognitive systems" in the same manner, as domains of infinite interactions in which the systems maintain themselves *in situ*. With respect to "self-regulation" ("self-description," "self-instruction"), all organisms have to compute future sequences of events, to make predictions and to draw inferences, as von Foerster (1967) has indicated.

These principles are used by Pritz and Mitterauer (1977) to explain narcissism. The authors represent the psychoanalytic process in terms of the "self-observationally controlled observer" (analyst) observing a "process of self-observation" (patient) (Mitterauer & Pritz, 1978: 179), utilizing the cybernetic epistemology and theoretical biology briefly reviewed above. The possibility turns upon a *theory of the observer* (von Foerster, 1973). Pritz and Mitterauer point out that there is no definition of "structure" in psychoanalytic literature, i.e., no

logic for the topology of id, ego, superego, conscious, unconscious, preconscious. The authors are therefore free to use the cybernetic-neurophysiological conception of Maturana (1975), for whom "structures," as noted above, are "operational themes." The superego becomes the individual's approach to sociocultural selection; the computer systems at issue represent "identification," "inductive inference," "internalization" and "self-regulation." "Self-reference" becomes a process of integration of different special-purpose systems within a "unifying frame of system-wholes." Libido, too, denotes an "integrative (self-referential) program" involved in particular phenotypic structures. Narcissism has a similar "human organismic self-reference." Ego is brain neurophysiology, providing "centralized functional control."

It is all *ars explicandi*, explanatory in information-theoretical terms. Yet nowhere is there a place for "emotive connotation," which, for Freud, one suspects, would have been a *coup de grace* for neopsychoanalysis, however detailed and cogent its explications.

Even so, the theories indicate that there are indeed fundamental limits in the processes, constraints (Pattee, 1974), whose definition is of great interest. *The concern is with closed systems of structures; each has its own explanatory theory; a property of "self-regulation" ("self-description," "self-instruction") adheres to each; and the processes are intrinsically "inductive." Respice finem:* this is what one sees at the end of the theorizing.

If, then, these constructs are to be taken seriously as applicable basically to psychoanalytic theory, as neopsychoanalysis proposes, it is a fundamental theoretical premise that *the patient is expressing "self-descriptions," at the very heart, the constraining limits, in the analytic process.*

Moreover, the constructs place induction at the same core, associated with the self-descriptions of the patient. *The insights, new meanings, inductions, are born of the self-references, self-descriptions, self-regulations, self-instructions, of the patient--*

all implicitly, for, like the amoeba, the patient cannot be aware of these marvels--cannot be aware, as theorists Maturana and Pattee will agree, because of "the language" problem. The amoeba cannot communicate the dynamics of its condition to itself, and this applies to the patient as well.

The "language problem," in particular with regard to the psychoanalytic couch, remains unsolved in the informational-theoretical domain.

THE LANGUAGE PROBLEM

Information theorists recognize (Maturana, 1970) that they have no *theory of communication* to complete their theorizing. Patient and analyst may be no more in communication than one amoeba with another, and until an acceptable theory of communicability is available, no one is likely to know for sure what the psychoanalytic situation really means.

There is now such a theory for all subjectivity, that of *consciring* (Stephenson, 1980b). According to this, communicability is a *sharing of common knowledge*, not a matter of consciousness. The original mean of *conscius* (from the Latin) from which our words conscious, consciousness and conscience derive, was "sharing of knowledge" (Lewis, 1967): the words are relatively new in the English language, conscience appearing around 1350 A.D., conscious not until 1650 with Descartes (Stephenson, 1980c). It is fair to say that Descartes put us on the wrong track by separating mind and matter, locking mind inside each of us, separately, as secret to each person, whereas an infinity of concourses was available to everyone, secret to none. Such is the everyday communicability of common life--of everything we see, hear, smell, talk about, around us all, and all of it taken for granted, and never questioned except in terms of false conceptions of mind and consciousness (Stephenson, 1980b).

It is with this conception, of the sharing of *common* knowledge, that Q takes its stand with psychoanalytic phenomena. But it is the *implicit* nature of the meanings that is profoundly at issue, not the

overt, grammatical, syntactical or any other form. Even the self is implicit. The theory of communication turns out to be a fundamental law of subjectivity--that all subjectivity is transformable into operant factor structure. Factors are theoretic Q sorts, the empirical estimation of which is possible by way of the *induction equation* (Stephenson, 1980b: 12). The factors are schematical (Peirce's law), i.e., syntheses, "wholes," produced unbeknown to the Q sorter. Each, even so, is self-referrable; each is an implicit aspect of self. Freud was profoundly right to deal with implicit (so-called unconscious) meanings; but implicit self, not self-deception, is at the core of the common mind.

Everyone agrees that languages depend upon symbol structure, rules of grammar, and upon rules for translating language-constructions into meanings. So defined, in cybernetic and biological-informational systems, they are "*closed* systems of structures" (Pattee, 1970). The constructions have circumscribed, fixed meanings. Thus, "it is raining" will have only one informational meaning, just what it says by denotative description.

There is an informational-theoretical routine, however, for *alternative* constructions. Many alternative constructions at one level of description can be reduced to fewer at another level by "an evaluative process" (Pattee, 1970). The importance of such a reductive transformation can be appreciated in the analysis of dreams, where the manifest content, which is over-determined in meanings, is reduced to one meaning as latent content. Similarly, where there is an infinitude of subjective meanings for "it is raining," an "evaluative process" for reducing this to only a few constructions (factors) would seem to be presaged by the fundamental epistemic theories. In the article on Virginia Woolf's *Orlando* (Stephenson, 1982), Virginia Woolf's autobiography was represented by her voluminous self-reflections about episodes in her life, each episode represented by a Q sort for a Q sample of her own self-referent statements--and the long history was reduced to a simple operant factor structure of a mere three factors.

The *communication*, in Q, is between the Q sorter and itself. As noted above, Maturana's (1970) biological-informational theory involves the same premise: In the linguistic domain there has to be communication based on connotative language. Theorists Mitterauer and Pritz quote von Foerster with approbation in these respects:

> *I am the observed relation between myself and observing myself,*

and, also,

> *"I" is a relator (and representor) of infinite order.*

It is admitted, however, that there is no theory of "emotive connotation" in informational theorizing. But in Q, that is its basis (Stephenson, 1980a). The "observed relation between myself and observing myself" is our transformation into operant factor structures--communicability which is implicit, yet easy to recognize once it is made apparent *after the effect.* "I" is indeed a relator and representor of infinite order: There is *form* infinitely throughout nature, no less in subjectivity as in the cosmos, as we note below.

Observe again the close parallels between Q and the cybernetic-epistemology of Pattee, Maturana, von Foerster, Pritz and Mitterauer, and Waddington et al.: different theories are required, different "inductions," different "self-references" at each level of theoretic description. In the case of Q, there is Q sorting at one level of description--with *concourse theory* and *theory of common communicability* (replacing consciousness). There is Q factor analysis at a different level of description--with *quantum theory* and *theory of form*. At the Q-sorting level, self is overt. At the factor level, it is covert. Induction is one thing at the Q-sorting level--the telling of a story, a self description. It is another matter at the factor level, where Newton's Fifth Rule operates: Factors are new schemata, new inductions in accor-

dance with Peirce's law of mind, new articulations of self (Stephenson, 1981a).

This body of theory is now well established. Most fundamental is *theory of form* (Burt, 1940; Stephenson, 1980b). Everything at the operant factor level of description is subject to inherent *form*, as certainly for subjectivity as it is for reality in the DNA molecule, the shape of an antelope's horn (D'Arcy Thompson, 1942), the fermion-boson of physics (Handler, 1972), the *form* in natural and theological science (Torrance, 1974). Operant factors are structured: and although it will be said that, surely, this is merely theoretical, we have to demur, and say with Heisenberg (1975) about quantum theory in physics, that the mathematics and techniques serve to *prepare* phenomena for our observation. Without the mathematical foundations for the techniques, nothing could ever be seen. And so it is for Q.

In the above context one can appreciate, perhaps, the fundamental significance of my version of Newton's Fifth Rule, as a solution to induction. The concern is with creations of the mind, so-called, but really creations of subjectivity in relation to concourse, feeling and self-reference--i.e., to everyday cognitions, basic feelings, and implicit self reference.

THEORY OF INTERPRETATION

Subordinate theory at the factor level of description involves the interpretation of factors.

Interpretation, down the ages, has meant both *ars intelligentia*, the understanding of meaning, and *ars explicandi*, the explication of meaning. Thus, the Sunday sermon is an explication of a Biblical text, whose understanding is reserved for the church, which purports to grasp the Bible's truth. Objective science has pursued the path of *ars explicandi*, of explanation in terms of *a priori* theory. The theory is an understanding, *ars intelligentia*--a matter largely overlooked by objectivist scientists (Stephenson, 1980a). Neither Newton nor Einstein overlooked the *ars intelligentia* of their science: For Newton it

was his Rules of Reasoning of the *Regulae Philosophandi*; for Einstein it was his belief in "pre-established harmony" between mind and nature. The scientist, Einstein concluded, has to operate with "something irreducibly given," over which he has no control (Einstein, 1935). So it is with Q. The *form* and the *operant factors* are "irreducibly given." Our scientific function, therefore, has to be one, fundamentally, of *ars intelligentia*, of understanding factors.

Thus, instead of saying that Q factors have to be interpreted, we would rather say, precisely, that they have to be understood.

Which is far from being merely a matter of semantics. It is our habit, Susan Sontag (1961) reminded us in her essay, *Against Interpretation*, to interpret works of art, to "pluck" them apart, to reach their latent content. Kafka's novels are "ravished," Sontag said, by such interpretation; they become allegorical for social ills in Kafka's experience, or for his castration anxieties, his religious fantasies, etc. All such is *ars explicandi*. What Sontag argued for, instead, was the manifest content of experience, as of art and literature, "to recover our senses." In my unpublished chapters on *Psychoanalysis and Q Methodology* (1954), I represented the same position, that *understanding* is at issue in the analytic situation, as the fundamental matter, and not the explicatory interpretations so familiar to us as psychoanalytic doctrine.

Autobiographical retrospection in Q, and free association in psychoanalysis, have almost everything in common. Retrospection is the *fons et origo* of Q. It clearly is the foundation, also, of psychoanalysis. The question arises, therefore, as to what should take precedence in science, a methodology with firm roots in quantum (factor) theory and pragmatics for anyone to employ, or the theory and practice of psychoanalysis? Clearly, the classificatory nexus--of id, superego, ego, conscious, preconscious, unconscious--is no longer acceptable as explicatory, as noted earlier (Basch, 1973). And as has been indicated, Q factors are operant, i.e., natural effects,

free of instrumental constraints to a sufficient extent (nothing is standardized in Q). The concern is with subjectivity *per se*. The Q sorter is the "relator and representor" (von Foerster) of observable relations between *oneself* ("I") and *observing oneself* --the latter by Q sorting, the observable relations by factor analysis. The factors, moreover, are syntheses, not reductionist principles. Each factor is a theoretical Q sort: the statements of the Q samples are schematically ordered (Peirce's law); each factor is thus a production, each a "whole" of self-reference, all unbeknown to the Q sorter.

Add to this the assumptions of cybernetic epistemology and theoretical biology--that "induction," "cognition," and "self reference" ("self-regulation," "self description") are operant in Q--and the significance of our theories becomes obvious. Newton's Fifth Rule is for induction *per se*, for all subjectivity. The *conseiring theory of communicability* replaces "cognition" and consciousness as theory of mind. Our *theory of self* has long been neglected. There is a problem as to how far self in modern theory is regulatory, or merely a consequence of subjective function, a problem dealt with in another of my unpublished works, *Intimations of Self* (Stephenson, 1952), written before *The Study of Behavior* (1953), and the subject, also, of a paper on Irving Goffman's *Presentation of Self in Everyday Life* (1969) (Stephenson, 1981b).

It is in the above context, therefore, that the conclusion must be that Q has priority over psychoanalytic doctrine: the concern is with implicit functions of the mind, as natural effects, not just theoretical explications.

This is not to say that Q methodology cannot be applied to psychoanalytic phenomena: to the contrary, categorical testing of psychoanalytic hypotheses can be pursued by way of Fisherian balanced designs and variance analysis, as for the case of Dora (Stephenson, 1953). But this is by no means as important methodologically as the *abductive* application of concourse and factor theory, of Q, to the same phenomena. One may be sure that steps were taken, in the 1954

manuscript, to compare a segment of certain psychoanalytic work with a patient, with a Q study of the same segment, and that studies of the kind are likely to abound in the future. Q, however, and its body of theories, has its own demands to make, and it is enough to recognize, at this juncture, that the fascinating phenomena of dynamic psychology are now open to objective study by way of Q and Newton's Rules.

William Stephenson, 2111 Rock Quarry Road, Columbia, MO 65201

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Stephenson at 35 (continued from p. 126)

nal, which is featuring a number of papers devoted to "Sir Cyril Burt: The Essential Man." Center-front in the photo is the bespectacled Sir Cyril; Stephenson, at age 35, is third from the right. To the left of Burt is the well-known J.C. Flügel. Mr. Raper (second from left, front row) was Burt's laboratory assistant, and before that Charles Spearman's, and before that Francis Galton's. Other members of the Society are identified in the aforementioned special issue of the *AEP Journal*.

Stephenson's contribution to the special issue is entitled "Cyril Burt and the Special Place Examination," which provides a brief summary of interwar and post-World War II educational policies in England and Burt's lack of responsibility for the directions they took, and ends with more personal reminiscences about Burt. Other papers scheduled to appear in the same issue are by Grete Archer, Charlotte Banks, Hans J. Eysenck, Arthur Jensen, Terence Moore, and W.D. Wall. The special issue editor is Professor Caven McLoughlin, College of Education, Kent State University, Kent, OH 44242. Persons interested in obtaining a copy should contact Mr. Robert Reid (Managing Editor, *AEP Journal*), Hillcroft, Duppas Hill Road, Croydon, Surrey CRO 4BG, England.