

## Operant Subjectivity

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## General Theory of Communication<sup>1</sup>

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**Abstract:** Q methodology makes a science of subjectivity possible and solves the “riddle of mind.” An illustration is given of a 4-year-old child sorting postcard pictures of children under a variety of conditions of instruction, entering into communication within herself, which is transformed into operant factor structure. The context is generalized in reference to the objective fact that “it is raining,” and the concourse of communicability that it engenders and the factor structure that results, leading to the conclusion that all such communicative action is transformable in the same way. The operantcy of factors is objective, as reached through centroid factor analysis and rotation (judgmental or varimax), with all factors being schematical (Peirce’s Law) and representing new understandings reached through feeling rather than logic, and whose meaning is found a posteriori as new propositions or principles that are open for all to examine and not for semanticists and professional critics only. Q’s forward movement has been blocked primarily by its being regarded as a branch of advanced statistics rather than as the basis of a subjective science focused on behavior with the self as central to it and subject to the study of single cases rather than large samples. It constitutes an end to Cartesian dualism on evidential grounds and provides information that is both structural and functional.

### Introduction

According to T.S. Kuhn (1962), it is the fate of new paradigms to become known by their exemplars, and not by the basic paradigms they serve. So it has been with respect to Q-methodology: Q-technique is widely known, but sight is lost of the paradigm it serves, to bring science into subjectivity. Since Q-technique is a fairly simple matter, it is easy to understand why Samuel Johnson’s remark about Boswell has been applied to me: “that fellow seems to me to possess but one idea, and that a wrong one.”

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<sup>1</sup> This article is an edited version of a paper presented by William Stephenson at a symposium on mass communication in Amsterdam in November 1978. It is a precursor of his “Consciring” chapter published in the *Communication Yearbook 4* in 1980. There are also affinities with his (1978) “Concourse” article. This version merits attention as it very effectively brings together some of the central themes in Stephenson’s approach to a science of subjectivity – meaning, the operantcy of factors, the study of single cases, concourse and communication theory, and the centrality of self. A reply to the paper presented by Stephenson in Amsterdam by H. J. C. Duijker was published in *Operant Subjectivity* in 1979 (H. J. C. Duijker, “Mind and Meaning”, 3(1):15-31). [Ed.]

The real idea, however, began in my days with Charles Spearman and Cyril Burt in London (1926-1935), and it was that subjective science is possible, and Q-methodology makes it so.

You may sense something, perhaps, of the excitement of 50 years ago. Spearman thought he had solved the “riddle of the mind,” with factor analysis as its tool (Spearman, 1914), an achievement considered by some at the time to be a Copernican Revolution for systematic psychology. Cyril Burt (1940) was in the wings, but put logic in the place of psychology, and in the course of my dispute with Burt about the possibilities (Burt & Stephenson, 1939), Q-methodology was born, but was regarded as controversial – the fate, again, of any paradigm. Meanwhile, the dilemma has remained. Modern science was already solving the riddle of the universe (Einstein’s theories were familiar to me, since I began my academic life as a physicist), but was leaving behind another riddle, which the late Alexandre Koyré (1957) called the “tragedy of modern mind” – the riddle of *mind*. It is this that, now, 50 years later, the last of Spearman’s assistants proposes to solve with a general theory of communication. Mind, we shall say, is nothing but human communicability, and we have a theory and methodology for it.

### A Sense of Discovery

No science is worth much unless it makes discoveries possible, that is, of what exists in nature and reality.

Let us begin, then, to see how discoveries are commonplace about communication, by way of Q-methodology. I chose a child, age 4 years, in an educated family situation, who attends a play-school and has free access to children’s storybooks and, of course, pictures of children.

I place before her, randomly, 18 colored postcards, each a painting of a child by a famous artist (I had collected them from an art gallery), the children ranging in age from about 2 to 8 years of age. The 4-year-old has never seen these pictures before, yet she’s immediately *au fait* with them, and begins conversation with me about this or that of them. She wonders why I am placing them before her ... and I begin to experiment.

You will guess that I get her to perform a Q-sort. I ask her to choose one picture most *like* her. Then one most *unlike* her. Then of those left, two most *like* her. Then two most *unlike* her. And so, in a matter of a minute or two, she provides me with a Q-sort with the frequency distribution in Figure 1. She has no idea that she has in effect ranked the pictures in this quasi-normal manner, and of course no idea whatever that I have attached these integer scores to her efforts. No idea, either, of why I was doing this.

N=18	<i>Most Like</i>				<i>Most Unlike</i>			
<i>Score</i>	+3	+2	+1	0	-1	-2	-3	
<i>Frequency</i>	1	2	3	6	3	2	1	

**Fig. 1. Forced-frequency distribution**

Shortly after, I get her to perform another Q-sort, with a different condition: this time it is “What does *Mummy* think you are like?”

Later in the day she performs another – the postcards always being randomly placed before her – for another condition of instruction.

So we continue, and in a short while we have got her to provide seven Q-sorts, with the following conditions:

1. Most like me
2. What Mummy thinks I'm like.
3. What my (younger) brother thinks I'm like.
4. What my class-teacher thinks I'm like.
5. What I imagine I could be like when I'm grown up.
6. What Dancy (the family dog) thinks I'm like.
7. What is the very *best* child.

The seven Q-sorts are thereupon given to the computer, which correlates and factor analyzes the matrix (centroid method) and rotates them to *simple structure*. The results are shown in Table 1.

	Condition of Instruction	Operant Factors		
		A	B	C
1	Most like me	X		
2	Me according to Mummy		X	
3	Me according to Brother			X
4	Me according to Teacher		X	
5	Me grown up			X
6	Me according to Dandy	X		
7	The very <i>best</i> child	X		

(X = significant factor loading; all other values insignificant)

**Table 1. Operant Factor Structure**

Some familiarity with Q-factor analysis as such is essential, of course, in order to understand the structure. The factors, A, B, C, are theoretical, but empirical estimates are possible for them – which I shall take for granted. We observe that the child's feelings are segmented into three sharply-distinguishable (uncorrelated) parts – one *herself* (A), the others *not* (B, C).

Where, then, is the communication?

The child, in Q-sorting, is *not* undergoing a test of her cognitive ability to distinguish likeness and differences. Instead, she has entered into a special situation of communicative self-reference. She enters into conversation with the pictures, sometimes openly for anyone to hear, with such remarks as "I'd hate to look like that," or "that's silly," or "I like her," or "Dandy had better not (choose that one)," ... and so on, with small allusions and dainty disclaimers as becomes a child.

It is as though she can call upon a hundred different statements, all with feeling and self-reference.

It is a situation of communication within herself – though others could hear the same in principle, and are often able to do so – set in motion by Q-sorting, and transformed into operant factor structure.

### **Communication in General**

It may seem that the above applies only to Q-sorting as such. But consider the situation for a husband who gets up late for work and learns from his wife at

breakfast that it is raining. “Damn it,” he swears, “I left my umbrella at the office”; and “Why in heaven’s name did you take my raincoat to the cleaners?” “What fool left the car windows open?” “Why does it rain every time I’m late?” “Get the cat out of my way” ... and so on, with responses from his wife, perhaps adding fuel to fire.

It is clearly a situation involving communicability – whether anyone is really communicating with anyone else or not, some may say. Our concern is merely with the verbal statements, overt or covert, effulgent in the situation, or its instigation. It is a mish-mash of subjectivity, really without a beginning or end, or any fixed sequence of events within it, yet somehow totally interdependent in its parts – even to kicking the cat.

A hundred or more self-referent statements can be collected from such a situation. We take a sample of say 50 of them, and later, in the evening perhaps, we entice the husband to look back on the incident, and to represent it in retrospect by Q-sorts, for example the following:

1. What were your feelings this morning?
  2. What is your more usual reaction to “it is raining?”
  3. What did you feel your wife’s reactions were?
  4. What are her usual reactions on rainy mornings?
  5. Describe yourself, personally, i.e., what you think of yourself.
  6. You kicked the cat: what did that mean?
  7. If you hadn’t gotten up late, how do you suppose you would have reacted to “it is raining”?
- ... and so on.

Correlated and factored, and rotated to simple structure, all mechanically by computer, the now-familiar factor structure emerges, for example as show in Table 2.

Note that the husband is describing the situation within its own conditions – irate him, wife, cat, rainy morning, umbrella, car windows left open and all else of the situation. Not a single researcher-imposed idea is in view, except for the Q-sorting technique, and this is of perfectly general applicability.

*It is apparent, then, that every communicative action of a person is transformable into operant factor structure – the person musing, daydreaming, reading a novel, enjoying a movie, acting, creating a poem, listening to music, arguing in a bull session, watching television, praying, quarreling with his wife, loving, hating, all such are subject to such transformation.*

Condition of Instruction		Operant Factors		
		A	B	C
1	My feelings that morning	X		
2	My usual feelings		X	
3	My feelings of wife’s reaction			X
4	My feelings of wife’s usual reaction	X		
5	Me, personally		X	
6	Kicking the cat	X		
7	My usual feelings if not late			X

(X = significant factor loading; all other values insignificant)

**Table 2. Factor Structure for “It is raining”****Lawfulness**

Let me begin to gain your acceptance of these discoveries by attending to the *lawful* nature of operant factor structures. Long before professor Skinner gave the name operant to the reflexes of pigeons, Charles Spearman was searching for *factors* with just such operantcy, that is, factors which are independent of the instrumentation providing them (Spearman, 1927). I showed him that this could not be achieved for factors in R-methodology (Stephenson, 1939), and I began in 1935 to achieve it by way of Q-technique. The factor structures in Q-methodology are independent of the particular Q-sample for a situation, of its size, of the shape of the frequency distribution, and even of the particular conditions of instruction for a Q-sort – I could have given the 4-year-old any pictures of young children, any number of them, and used different frequency distributions, as well as different conditions of instruction, and would have got operant factor structure of the same import. No standard Q-samples, no norms, no standard conditions of instruction, have ever been published by me, because all such would solidify instrumentation and to that extent reduce operantcy. You may appreciate, therefore, why Q-technique was scarcely acceptable to psychometricians for whom standardization is synonymous with science. The matter is dealt with in “Factors as Operant Subjectivity” (Stephenson, 1970), reprinted in *Operant Subjectivity* (Stephenson, 1977).

Any computer program, for centroid factor analysis and rotation to *simple structure* (varimax), is usually adequate to bring operant factors into focus. I say usually, because on occasion “hand rotation” serves the purpose better, a matter of principle about which J. W. Thompson (1962) is in agreement with me.

*Operantcy, in short, is objective.*

Next, and equally important, is the fact that conditions of instruction for Q-sorts are in line with modern logic-of-science, put there before the line was clear and acceptable. The conditions of instruction are not just anything we care to set the Q-sorter to do, but carefully-considered statements in hypothetical form. They set the stage for communicability. The concern, for much of it, is with retrospection; but prospecting also enters, and on occasion there is almost instant replay, as in the 4-year-old child’s first Q-sort, asking “which is most like you?”

With respect to lawfulness, laws of course represent regularities in nature, but it is usually forgotten that they are also *conditions of instruction*, telling the scientist what he might expect. Conditions of instruction for Q-sorts are always of this character: they are hypothetical in form, and there are many known laws in Q-methodology (Stephenson, 1974), for example James’s law, Peirce’s law, Rogers’s law, Parloff’s law, Perlin’s law, etc.

I gave the name *Rogers’s law* to the possibility of idealization in the structure of subjectivity, in respect for Carl Rogers’s humanist position. The *law* states that we can expect idealization in subjectivity, and, for the 4-year-old, “The very *best* child” was meant to elicit idealization. Note, indeed, that the child had apparently internalized it into herself (in factor A), and you begin to realize how theories of “middle range” (Merton, 1954) enter into Q-methodology.

The most important of our laws is taken from Charles Peirce’s *law of mind* (Buchler, 1950), and is as follows:

*All operant factors in Q are schematical.*

By schemata is meant a theme running through a factor. A simple example is afforded later, when I discuss *concourse* theory.

Each factor in Q-methodology is itself a Q-sort – theoretical – but pragmatically it is an average of the different Q-sorts “on” a factor. Thus factor A, for the 4-year-old, is a Q-sort average for her Q-sorts 1, 6, 7. It is a never-ending source of astonishment in Q-studies to see how averaging a few empirical Q-sorts, to give their theoretical counterpart, brings a simple schema to light – hidden in the separate empirical Q-sorts.

One of the most interesting laws is taken from William James’s distinction between what is *me* and what is *mine* – my clothes are *mine*, though in the case of a hippy or a fop, they may be much more, an integral part of the person’s self as such. Many different conditions of instruction can bear upon this distinction. The law is to the effect that operant factor structure may indicate the segmentation into the *me* and the *mine* of the Q-sorter for the given situation.

Thus, factor A for the 4-yr-old is apparently a facet of *herself* (*me*) whereas B and C are set aside, as *hers* (certainly) but not *her*. Condition of instruction 1 (“most like me”) was directed at just such a possibility.

We venture, therefore, into science: and as we learn to deal with measurement of time, space and mass, for which there are universal units, so it is for subjective science. It has a unit for *saliency*, the same for every Q-sort, for every Q-sample, for every subjective problem, for every measurement of communication, for everyone. The unit is called *quantsal* (for quantity and saliency): it is the familiar definition for *standard scores* in psychometry, by which statistical distributions, in whatever units, are translated into pure number distributions whose *mean* is zero and *standard deviation* 1.00.

The above factor structure, therefore, has a unit of universal applicability: there is time, mass, space for objective science, and now *quantsal* numbers for subjective science.

You can be forgiven for wondering whether I am sponsoring a sort of alchemy, a numerology of an obsessed mind! But I am sane and serious. It should be apparent that what is at issue is a profound break between science conceived as essentially a *predictive* process, of hypothesis-testing in the manner elaborated upon by Karl Popper (1959) in his *The Logic of Scientific Discovery*, and science which finds a place for discovery of hypotheses *in the first place*, something Popper forgot, or called a “myth.” I was a very early critic of deductivism, as Rozeboom (1972) indicates; and the methodology of which the above examples are part is fundamentally *inductivism*, as hypothesis-forming. I am the more certain than ever of the matter from the recent discovery that Newton had suppressed a Fifth Rule, “found asleep among his papers” by Alexandre Koyré (1965) in 1965, which was Newton’s effort for a Rule to take care of hypotheses capable neither of proof nor disproof (in objective terms), which are clearly what we all assume about subjectivity. I have recently reformulated Newton’s *Fifth Rule* (Stephenson, 1975-1976), and it is no longer true that subjectivity need be the domain of unprovable hypotheses. It is all subject to operant factor structure.

Q-methodology, then, stands for *discovery* in subjectivity, of reality in nature, made possible by technique. We can, so to speak, see the structure, as if by X-ray.

### **Theory of Concourse**

It is not enough, of course, to have discovered operant structure for self-reference communication for the language we use with feeling and self-reference. There is need for an explanation of why it is so.

For this we begin by distinguishing between *information* and *communication*. Information is always *without* self-reference. Communication is always *with* self-reference (Stephenson, 1972a).

Consider, then, "it is raining."

The *one* statement, "it is raining," is enough to inform us of a matter of fact in nature. But not ten thousand can exhaust what "it is raining" may mean subjectively. It is beautiful; as warm as tears (Longfellow). It dances down. It is a sign of the resurrection (the Koran). It is exasperating, a delight, a farmer's joy. Has it a father (Job) who begot the raindrops? Do I have to put something away for a rainy day? Is kissing in the rain more exciting than kissing in bed? ... and so on, *ad infinitum*.

Every such statement has a simple form ...

*I ... feel ... (something).*

James Ward (1886) called such statements "presentations," and for him, as for us, they are the "simplest form of psychical life" (p. 41), the elements of communication – as atoms are of physics, molecules of chemistry, and *bits* are of information theory. Every concept, idea, feeling, event and experience in common life has about it the possibility of innumerable "presentations." They are clearly of statistical proportions:

*A collection of "presentations" for anything is called a concourse.*

The phenomenon is astonishing. I could have shown the 4-year-old child a thousand pictures of children, all different, and she would have been *au fait* with all. By the time a child is three or so, it is in some sense communicable with every picture in the hundreds of picture story-books we could show it, and can talk with them, not merely to give information ("that's a teddy"), but to reveal self-reference ("that *my* teddy" ... *said with feeling*).

Moreover, there is a certain commonality about all concourses. By the age of adolescence, every youth in a culture is *au fait* with every concourse. This is because concourses are not compilations of facts or information such as we learn systematically, but because "presentations" are feelings which are lived through on an everyday commonplace basis. Formal learning deals with facts and logic, with algebra, physics, grammar, etc. "Presentations" fend for themselves in ostensible learning and imagination, subject to fortuitous experiences, in common conversation, singing songs, viewing television, reading for fun, etc., in countless situations and musings, lived at random.

Q-technique began with samples from concourses. They were the "populations" and "universes" of our early studies. And Q-technique's significance lay in the way it allowed statements from a concourse to "jostle" one another, not by logic or reasoning but basically by feeling, such that *new* relationships may be fashioned in the process.

Consider, for example, a few statements from a concourse on "it is raining":

I watch thunderstorms from a nice safe place – it's exciting.

If it rains a lot you smell the earth.

Makes me feel sad, if I'm alone.

I got to bed and sleep when it rains – it's boring.

It's sort of romantic to walk in the rain.

I like the taste of kisses in the rain.

In Q-sorting what these statements mean, in the context “it is raining,” one young man may put them into poetic form, in effect ...

Romance is thunder,  
A smell of earth.  
It end is sadness, boredom ...

Another may put the statements in quite a different order, with quite different significance ...

Rain is sadness, boredom  
A smell of earth, it  
Makes a mockery  
Of romance and kissing.

These are not produced by reason, or by accidental contiguity, but by *feeling* (about romance as it happens). Each is schematical, i.e., it implies a theme, like the plot of a story. Yet the young men are not aware, in the Q-sorting, that this has happened. Such, *in minutiae*, is the operation of mind (as we say) upon statements of a Q-sample, jostling together during Q-sorting.

The lawfulness at issue is Peirce’s *law of mind*, which we translate as *Peirce’s law*, that operant factors are schematical (*ut supra*).

Laws tell the investigator what to expect, i.e., what he has to look for. Each operant factor is a “theoretical” Q-sort, with the same Q-sample; but it is the investigator’s function to find the theme running through it, by interpreting the schema of the factor (as we say). There is inductive gold in the factor Q-sort, put there by a creative act, out of feeling, by the subject. The origin of all creative ideas, we can suppose, is always in the context of concurrence. It is a law described long ago by Charles Peirce as “supreme”; he didn’t know how it worked, adding, however, that the ...

... amount of arbitrariness in the phenomena of human minds is neither altogether trifling nor very prominent. (Buchler, 1950, p. 349)

Concourse is therefore central to our theory of communication – its most important principle – that every idea has its concurrence. There is now a developing *theory of concurrence* (Stephenson, 1978a). Communication (in our use of the term) is at the heart of creativeness, not information. An example is given in my paper on the substructure of science (Stephenson, 1972a). There are strong indications that as an educational principle it could break down the deadening dependency upon “learning theory” and the false attributions of objectivity in much current knowledge (Stephenson, 1985) – indeed, I am completing an astonishing volume called *Quiddity College* (Stephenson, 1980b) in which, for two years of college life, undergraduates approach all knowledge subjectively, leaving facts along for the while! It is perhaps of particular interest that the “Research Program” appended by E. S. Toulmin to his *Human Understanding: The Collective Use and Evolution of Concepts* (1972), for which he had no methodology, fits into our paradigm. Concourse theory absorbs



“population” theories of concepts, and of conceptual change, such as T.S. Kuhn (1962) and Toulmin discuss.

### Meaning

There could scarcely be a theory of communication without a place for *meaning*. What, then, does “it is raining” *mean*? (to continue with our simple example).

By way of information theory, for example in Donald MacKay’s *Information, Mechanism and Meaning* (1969), meaning becomes a switching and scratching mechanism of the brain, which triggers the person into action – when to put up his umbrella, put on his overcoat and the like courses of action, the concern being with “states of readiness” for “goal-directed, adaptive activity: activity with a purpose” (MacKay, 1969, p. 23). In principle this can be made predictive by gathering probability data, for the likelihood, for example, of using an umbrella for a shower but an overcoat for a downpour. MacKay uses the same vector concept, of multidimensional space, as in factor analysis. His explanations, admittedly only for illustrative purposes, are “simple probabilistic artifacts, involving valuative feedback on probabilities of excitation” (MacKay, 1969, p. 140). All of it is in the objective framework, and meaning is a fixture to each “state of readiness.”

The position is much more simple-minded in our theory, in spite of the common mathematical-statistical foundations of MacKay’s thesis and ours. For us, what any *communication* means is always a matter for discovery:

*Meaning, in communication, is always schematical, indicated by operant factors.*

It arises from feeling, by way of Peirce’s *law of mind (ut supra)*, as the *law of schemata*, i.e., schemata are always indicative of a new meaning, a new thema, a new proposition, a new concept, a new *meaning* out of the bedrock of a concourse. Meaning, so to say, feeds upon itself! The tiny poem by the young man:

Romance is thunder,  
A smell of earth.  
Its end is sadness, boredom ...

is the exemplar for the birth of every meaning in the sphere of communication (again, communication is always self-referent).

It is clearly a theoretical position.

Meaning is *sui generis*, always to be *found*, never assumed. What “it is raining” means, therefore, is an empirical matter. This applies to every concept – for example *chair, fish, goodness, beauty* – to all ruminations and retrospection, all dreams, all prayers, all enjoyment of poetry, art, music, all gossip, all devotional and volitional experience – wherever there is communication.

You will agree that dreams need interpreting. It is now a straightforward matter to elicit operant factor structure for any dream, precisely as for the “make-believe” of the 4-year-old child and the irate husband.

But you leave concepts to semanticists and philosophers, poetry and literature to the *literati*, movies and art to the argotese and pedantry of critics. It need no longer be so much out of control. My mentor, James Ward, remarked that all experience is experiment, and so it is, to judge by the ease with which one can experiment with communication. You may wish to look at my prototypical studies on Keats’s *Ode on a Grecian Urn* (Stephenson, 1972b), on the “Immediate Experience of Movies”

(Stephenson, 1978b), on “Intelligence and Multivalued Choice” (Stephenson, 1973), and on the “Conceptualization and Measurement of Operant Effects of Television Viewing” (Stephenson, 1976).

The meaning of any story, movie, or theatrical play can be represented theoretically, *a priori*, by factor structure: I have done so, for example, for Eugene O’Neill’s *A Moon for the Misbegotten* (Stephenson, 1980a; see also Stephenson, 1985). The theoretical model can be compared, of course, with the empirical data from a reader, viewer, or theatre-goer. If you like this kind of experimenting, it is boundless!

Always, however, communication is directly involved in Q-sorting. The conditions of instruction are in the subject’s own terms; the theory is supernumerary and interferes in no way with the immediate experience of the subject.

Though I appear not to be very kindly to literary critics, R.L. Warshow’s *The Immediate Experience* (1962) was an exception, a reminder then, in 1962, that a movie-goer’s experience as such had never really been examined. It is still true. The psychologist, sociologist, or critic offers *his* interpretations (as MacKay offers *his* explanation) – as projections of oneself as hero (Freud), as cultural myth (Wolfenstein & Leites, 1950) and the like; they point to the social and personal effects – on homosexuality (*Reflections in a Golden Eye*), racial bigotry (*In the Heat of the Night*), marital discord (*Two for the Road*), youth sexual fantasies (*The Graduate*), mindless violence (*Bonnie and Clyde*). Warshow rejected all such “explanation,” and asked for examination instead of the experience of the movie-goer as such:

... it must be [he wrote] that I go to the movies for the same reason that the “others” go: because I am attracted to Humphrey Bogart or Shelley Winters or Greta Garbo; because I require the absorbing immediacy of the screen; because in some way I take all that nonsense seriously. For I must make one more confession: I have seen a great many bad movies, and I know when a movie is bad, but I have rarely been bored at the movies; and when I have been bored, it has usually been at a “good” movie. (Warshow, 1962, p. 28)

It is precisely in such a context that we study the *meaning* of anything communicative: the subject’s immediate experience is always in the Q-sorting.

The abortive set of 60 experimental studies undertaken for the U.S. Surgeon-General’s Report on *Television and Growing Up: The Impact of Violence* (Scientific Advisory Committee, 1972) is testimony to the obduracy of the objective approach to this problem – all were directed at the social behavior of children, or if a thought was given to the immediate experience of children, it was with identification categorically assessed by a questionnaire (Clark, 1972, p. 247). Only Tannenbaum (1980), later, was getting hot, with babies sucking milk from a bottle while watching television: at least *his* categorical concepts couldn’t influence a baby’s operantcy! The studies to which I make reference in my note to The Centre for Advanced TV Studies (Stephenson, 1976, *ut supra*), like a baby sucking a bottle, leave the stage for the child’s own play. The impact of television, I assume, is tangled in the subjectivity of the child as immediate experience, and this the child can replay for us. A Q-sample is taken from film, of “stills” (as small photographs) but from the film; the child sees the film on television and then performs Q-sorts with the “stills” under different conditions of instruction designed to determine whether the child has internalized the violence actions, or has merely regarded them as “make-believe.” This in no way blocks the entrance to theory: all of the constructs of dynamic psychology can find

their way upon the stage in Q-sorting – projection, rationalization, identification, idealization and the rest – but only *after* the events, after the immediate experience has been lived through, leaving behind (as it were) its operant factor structure. One of the most useful of Q-methodology's laws is indeed *Freud's law of identification* (Stephenson, 1974, *ut supra*).

The key to the methodology is to allow the individual to describe what he feels, within the context he himself provides, in his own language, with not a single researcher-imposed theoretical matter in his sight.

### **A Sense of Theory**

Enough has been said to introduce a little of our general theory of communication. There is much more to say. But I would like to feel that you are now asking, why didn't we know about this before?

Basically, the answer is that methodology has been regarded by social scientists as synonymous with advanced quantitative procedures rather than as the cornerstone of scientific inquiry (Blumer, 1969), and our work has so suffered. Q-methodology was meant to be the foundation for a subjective science. Instead it remains as Q-technique, Q-analysis, Q-method, alongside multivariate analysis, discriminative function, variance analysis, R factor analysis and the like tools of statistical minds.

The methodology was meant for a fundamental behaviorism, as the title of *The Study of Behavior: Q-technique and Its Methodology* (Stephenson, 1953a) proclaimed. The behaviorism was radical, as my "Postulates of Behaviorism" in *Philosophy of Science* (Stephenson, 1953b) clearly indicated in 1953. It included all sensation and experience; and "consciousness" was merely a categorical concept.

I shall not recite the long list of studies undertaken over the past 50 years to further this conception of mind as behavior, of a special kind no doubt, since it was behavior with a *self* central to it, pursued in terms of the "single case" methodology, against the massive resistance of large-sampling doctrine (Stephenson, 1974). It is only important, at this opportunity, to represent the substantiality of human communication, more especially in its societal forms. The ramifications are everywhere, in science, the arts, mass communication, and common life.

Consider, for example, the thesis of the late S. E. Hyman, in his *The Tangled Bank: Darwin, Marx, Frazer and Freud as Imaginative Writers* (1962), in which he points to the massive metaphorical (i.e., *communicative*) nature of the great works of these men – Darwin's *On the Origin of Species*, Marx's *Capital*, Frazer's *The Golden Bough*, and Freud's *The Interpretation of Dreams*. These, in societal respects, are probably the most important works of the past century, and they continue to rattle their metaphorical bones. That they greatly influenced modern life need not be debated: but they are not modern science in the frame of Einstein and physics. They were, and remain, imaginative works, in the context of everyday common conversational communication, astonishingly in line with the theory of communication of the above pages. The works are largely non-academic, non-sectarian. Darwin's *On the Origin of Species* sold out on the first day of its publication. It was scarcely a "popular" work, in any sense of "writing down" to please a less-well-educated public. On the contrary, his audience was obviously far wider than the few biologists of his time. The theory of the origin of species served well enough for the immediate scientific purposes; and indeed it was not until some 80 years later, with R.A. Fisher's (1935) work and modern genetic theory, that solutions have been found to Darwin's many observations. The truth is that his rhetoric was in a concourse common at the time to

all educated people in the West, an entanglement of science and religion, with which everyone was *au fait*, as surely as my 4-year-old granddaughter was *au fait* with every picture of a child I could show her. Listen, for example, to the sonorous Darwin, writing of the mountains of South America:

... where the metaphor of the coral is of sacrificial dying, here it is a coming to birth, with the landscapes as a great maternal body. The volcanoes are like teeming wombs, "orifices of eruption."

And what is more modern in the world of advertising slogans than Darwin's key images, "the struggle for existence," "survival of the fittest," "victory for the battle of life"? Darwin was quite aware that this was metaphorical; but, since he lived inside it, he was not aware of the *concourse* upon which he himself depended, and upon which the success of *Origin* was assured. There was an audience, as we now say, ready for him. So it was for Marx's *Capital*, the full metaphorical fervor of which is emblazoned in *The Communist Manifesto*. So it was with psychoanalysis: who indeed has not been on its bandwagon, *au fait* with its every wish? Frazer's *The Golden Bough* is more esoteric, but Occultists, Scientologists, and Psychic Venders batten upon it every day.

That these works were creative, imaginative, culture-indicative is quite certain; that they were on the right objective lines is also accepted. What they portend for human communicability is lost sight of completely, however, because of present-day obeisance to objective science.

What I mean by this is readily illustrated by glancing inside the over 600, double-column pages of the 1977 *Communication Yearbook 1* (Ruben, 1977). It shows our field in considerable disarray. The *Yearbook* begins with a plea for a "whole new concept of science" (Alfred G. Smith) and for new phenomena upon which to focus it (David Berlo, in Ruben, 1977, p. 11). Neither is forthcoming ... except in the above pages. Berlo aspires to organismic principles, such as A. N. Whitehead propounded 50 years ago in his *Science and the Modern World* (1953), and sees communication as "outside natural laws," with information as a basic concept. Smith wants Newtonian principles and behavioral science replaced, for his purposes, by ultra-relativistic science. Meanwhile, in the same *Yearbook*, Capella (Ruben, 1977, p. 46) points to the unlikelihood of any methodology ever being found for the complexities of communication, which has to be studied, he notes, "... as an ever-changing, unbounded, unsequenced, and totally interdependent process." We recommend the above pages to him; and I can assure my friend Berlo that *information*, by any definition known to him (of Szilard's and Shannon's information theory, or of Gabor and MacKay's *structural-information*) is of no importance whatever in the theory of communication herein propounded – where information is of a new kind altogether, the *functional information* of operant factors.

It is Kaarle Nordenstreng, however, in his commentary on European communication theory (Ruben, 1977, pp. 73-78) who has most to say, and significantly, about the sorry state of Western "communicology." He, too, yearns for holism, but within the objectivist framework. He makes reference to Karl Held with approbation, whose view is that those who overlook the "material elements" in the communicative process (i.e., the Marxist-Leninist dialectic), as well as those who are so fascinated by the concept of communication that they give it supreme place as *the* element of human nature – both, Karl Held proclaims, are enmeshed in ideology, and not science:

The general tendency to explain everything ... [as] communication ... is not science but ideology. As not a single one of the objects of communication research is essentially composed of communication, communication becomes a fetish which explains nothing. (in Ruben, 1977, p. 77)

This apt quotation has the ring of truth about it – except that the term “communication,” chameleon-like, changes its color with its every use!

Nordenstreng’s prescriptions for our field are all in the objective science mode. Yet everything he prescribes has already had attention from our subjective approach. I have long been critical of so-called communication theory and research in our field, as my *The Play Theory of Mass Communication* (Stephenson, 1967) attests: my concept is of mass communication *in the mass*, not as communication of the mass *media* – just as Nordenstreng might have wished. (The concept was found in Martin Brouwer’s [1967] “Prolegomena to a Theory of Mass Communication,” and its origins are deep in Georg Simmel’s and Emile Durkheim’s principles.) The preoccupation in the West has largely been with *information flow*, as reviewed by Paisley (1965), and which I put aside as of little consequence (1972a, p. 22) for reasons Nordenstreng would accept. That Western “communicology” has the failings ascribed to it by Nordenstreng is easy to support: there is indeed no theoretical work behind it; and acquiescence in humanistic doctrine is endemic, all platitudinous, and not science at all. I agree with Nordenstreng, also, that communication theory should enter into political science and into general sociological theory: but again Q-methodology has already entered these fields – though my first venture, entitled *Amelioration of Political Conflict* (1963) was scoffed at by political scientist reviewers, and was never published. But the work of S. R. Brown (1980) on political science is making amends; and I have recently completed a chapter on a new theory of political conflict which will be of interest to Nordenstreng particularly (1980b, Ch. 11). I have also provided a solution to the problem of Alvin Gouldner’s reflectiveness,” for the future of general sociological theory (Stephenson, 1975-1976). All of this is within the framework of our theory of communication. Thus, if I were to give a prize for a contribution with which I am in most agreement as to theory in our field, it would go to Kaarle Nordenstreng’s commentary in *Communication Yearbook 1* (Ruben, 1977).

Yet my theoretical approach is profoundly different from Nordenstreng’s – poles apart, as different as objectivity and subjectivity *per se*. His approach, like that assumed by those he criticizes, is solidly in the objective framework. Since we come to the same conclusions, why, it will be asked, all my fuss? Is it not wiser to gain knowledge objectively, with “material elements,” than to turn inwards into subjectivity?

Which is the basic, unhappy *contretemps*. There is far more about subjectivity that is left undiscovered than anything so far encountered by the objective approach to human communication; and it is precisely because of the presumptions of objectivity that these matters are being ignored. My own work and Nordenstreng’s is a mere tip of the iceberg. It was for this reason that I wrote, recently, “The Shame of Science” (Stephenson, 1978c). The shame is not for shameful things done, but for blocking things that need urgent attention. Some 300 years ago, when Newton and Descartes were laying down the foundations for modern science, a priest was being burned at the stake near Paris, for sorcery, with unanimous scholarly support from the legal, theological and humanist experts of the time. All about them, and within themselves,

was the vast emotional sea of ignorance and cruelty, of demoniacal belief in witchcraft and sorcery, described with such pity by Aldous Huxley in his *The Devils of Loudun* (1952). In spite of the enormous advances in modern science, some such spectral communicability is still about us, more especially in the West, where half the American public believes in flying saucers and the like aberrations of psychisms and the occult.

It is still unfortunately true, it seems, that some thoughts are unthinkable at given periods in our history, and one of these is the thought that something scientific can be made of mind. We accepted Freudian unconsciousness – but only because it was modeled on modern science, with determinism at its core. As you can guess, everything in Freud was on the right lines, except his theories.

But there are other good reasons for my fuss.

In the wake of communication theory, substantial gains have been made in matters of historical significance.

First, there can be an end to Cartesian dualism, not on mere metaphysical, but on evidential grounds. There is commonality between the inherent structure of nature as Einstein talked of it in *The World as I See It* (1934), and the operant factor structures of communication – the formula for water, H<sub>2</sub>O, is no longer merely two atoms of hydrogen and one of oxygen, but these atoms in a spatial relation to each other. So it is for operant factors, with as much reason in the physical and so-called mental forms.

Next, the theory of communication marks an end to the fiction of consciousness as a substantial existence, as such, of psychical substance. Julian Jaynes, experimental psychologist like myself, completely misreads the experimental evidence regarding consciousness, and accepts a substantial psychism, with attributes (e.g., spatialization), in his *The Origins of Consciousness in the Breakdown of the Bicameral Mind* (1976). Consciousness, he argues, only arrived recently on man's historical scene, some 3,000 years ago. Like any other concept, consciousness is subject to concourse theory, and it is easy to prove that for citizens in the United States the bicameral mind is still intact – heaven is “up there,” and divine messages daily received from “God up in the heavens.” I am of the opinion that these good citizens are quite conscious: what has to happen to them is in relation to *self*, not consciousness.

The theory of communication conjoins the only genuine (i.e., non-categorical) theory of *self*. (It is worth a mention that my first major work was directed at psychoanalysis and existentialism, to show how they could become operational with Q-methodology; completed in 1952-1953, with the title *Intimations of Self-psychology*, it couldn't find a publisher – though some psychoanalysts were sympathetic. It replaced objective ego principles by operant self; there is a growth of interest in *self* in psychoanalytical circles, but it remains, like all others of the humanist psychologists, purely categorical.)<sup>2</sup>

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<sup>2</sup> In the early 1950s Stephenson actually completed three book-length manuscripts: *Intimations of Self-Psychology*, *The Study of Behavior: Q-Technique and its Methodology*, and *Psychoanalysis and Q-Method: A Scientific Model for Psychoanalytic Doctrine*. Here Stephenson is probably thinking of the *Psychoanalysis and Q-Method* book. This was submitted to the University of Chicago Press and it received a favourable response from the Press's reader, a New York psychoanalyst. Following his departure from the University of Chicago to take up a position as Director of Research at Nowlands & Co., a market research firm of industrial consultants in Greenwich, Connecticut, Stephenson was unable to find the time to carry out

Our theories also mark an end to the “myth” of *inductivism*, and to the predominance of *deductivism* in logic of science. Finding that philosophers of science were quite wrong, I had to write my own Scientific Creed (Stephenson, 1961), from which there has developed a method for general induction, and, most significantly, a formulation for Newton’s *Fifth Rule* (Stephenson, 1975-1976).

There is, therefore, a new theory of information to contend with, along with that of Szilard and Shannon, upon which telecommunication, computing and pure physics depend (Brillouin, 1962), and that of Gabor (1951), Fisher (1935) and MacKay (1969), which concerns the structural information reached by experiments. The new form is *functional information* of Q-methodology. Nor is it merely coincidental that *Q-technique* holds in its reins the possibility of both forms of experimental information: the variance analysis of Fisherian balanced-block designs of Q-samples given structural information in MacKay’s formulation, whereas operant factor analysis of the same Q-sample gives the new functional information. The difference is not just that the one is *a prioristic*, but that the one asserts ad hoc categories beforehand, whereas the other is operant, without categories.

Yet Q’s measurements, as quantal units, are necessarily and essentially subjective – by *one* person, about his own *communication*, which is what the general theory is about. Q-methodology, the broad name for the above, does not apply to information in any objective sense – it applies to communication, defined as self-referent, commonplace, ostensible, everyday conversational opinion, with feelings and self ever-present.

The theory of communication could not have been advanced without the above developments: it is because of these that it seems obligatory to place it as of prior significance to objectivism, Nordenstreng’s or anyone else’s.

But the poof of a pudding is in the eating. Notwithstanding Karl Held, everything subjective can be explained as commonplace communication, conversational at heart. And with it, by way of *concourse* theory, new knowledge and innovative pragmatics lie pregnant in its wake – in the physical sciences no less than the social, in the humanities (English literature) no less than in political science, in the biological (medicine) no less than the educational.

You will find in future many applications of the general theory of communication in my *Quiddity College* (Stephenson, 1980b), where privileged undergraduates, for two years of old-fashioned Oxford-type education, ignore objective knowledge and make sport with subjectivity, whose *modus operandi* is communication, with its roots in everyday feeling and self-reference.<sup>3</sup>

*Hodie mihi, cras tibi* – all mine today, but (perhaps) yours tomorrow.

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the fairly extensive re-working following the collection of the additional single case material that the Press’s reader had recommended. Unfortunately, no definitive version has been located of the first manuscript (though several incomplete drafts were found in his study). A complete version does exist of *Psychoanalysis and Q-Method*, some excerpts from which will be published in *Operant Subjectivity* in due course. [Ed.]

<sup>3</sup> Fortunately, a complete version of this important manuscript is in the Stephenson Archive. A special issue of *Operant Subjectivity* is being planned to help make available some of this material to a wider audience and to explore the significance of this work to which Stephenson attached much importance. [Ed.]

August 1978

## References<sup>4</sup>

- Blumer, H. (1969). *Symbolic interactionism*. Englewood Cliffs, NJ: Prentice-Hall.
- Brillouin, L. (1962). *Science and information theory*. New York: Academic Press.
- Brouwer, M. (1967). Prolegomena to a theory of mass communication. In L. Thayer (Ed.), *Communication: Concepts and perspectives* (pp. 227-239). London: Macmillan.
- Brown, S. R. (1980). *Political subjectivity: Applications of Q methodology in political science*. New Haven: Yale University Press.
- Buchler, J. (Ed.) (1950). *The philosophy of Peirce: Selected writings*. New York: Harcourt, Brace.
- Burt, C. L. (1940). *The factors of the mind*. London: University of London Press.
- Burt, C. L., & Stephenson, W. (1939). Alternative views on correlations between persons. *Psychometrika*, 4, 269-281.
- Clark, C.C. (1972). Race, identification and television violence. In G. A. Comstock, E. A. Rubenstein, & J. P. Murray (Eds.), *Television and social behavior: Vol. 5. Television's effects: Further explorations* (pp. 120-184). Washington, DC: U.S. Government Printing Office.
- Einstein, A. (1934). *The world as I see it*. New York: Covici Friede.
- Fisher, R. A. (1935). *The design of experiments*. Edinburgh: Oliver & Boyd.
- Gabor, D. (1951). *Lectures on communication theory*. Cambridge, MA: M.I.T. Press.
- Huxley, A. (1952). *The devils of Loudun*. New York: Harper & Brothers.
- Hyman, S. E. (1962). *The tangled bank: Darwin, Marx, Frazer and Freud as imaginative writers*. New York: Atheneum.
- Jaynes, J. (1976). *The origin of consciousness in the breakdown of the bicameral mind*. Boston: Houghton Mifflin.
- Koyré, A. (1957). *From the closed world to the infinite universe*. Baltimore: Johns Hopkins University Press.
- Koyré, A. (1965). *Newtonian studies*. London: Chapman & Hall.
- Kuhn, T. S. (1962). *The structure of scientific revolutions*. Chicago: University of Chicago Press.
- MacKay, D. M. (1969). *Information, mechanism and meaning*. Cambridge, MA: M.I.T. Press.
- Merton, R. K. (1954). *Social theory and social structure*. Glencoe, IL: Free Press.
- Nordenstreng, K. (1977). Recent developments in European communications theory. In B.D. Ruben (Ed.), *Communication yearbook 1* (pp. 73-78). New Brunswick, NJ: Transaction Books.

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<sup>4</sup> The References have been updated to provide missing bibliographic details and to take into account the publication of manuscripts that were unpublished at the time that this manuscript was written. The references to Clark (1972), Nordenstreng (1977), and Tannenbaum (1972) were originally missing and have been filled in with the references that Stephenson likely intended. [Ed.]



- Paisley, W. J. (1965). *The flow of (behavioral) science information: A review of the research literature*. Stanford, CA: Stanford University, Institute of Communication Research.
- Popper, K. (1959). *The logic of scientific discovery*. New York: Basic Books.
- Rozeboom, W. W. (1972). Scientific inference: The myth and the reality. In S. R. Brown & D. J. Brenner (Eds.), *Science, psychology, and communication: Essays honoring William Stephenson* (pp. 95-118). New York: Teachers College Press.
- Ruben, B. D. (Ed.) (1977). *Communication yearbook 1*. New Brunswick, NJ: Transaction Books.
- Spearman, C. (1914). The theory of factors. *Psychological Review*, 21, 101-115.
- Spearman, C. (1923). *The nature of "intelligence" and the principles of cognition*. London: Macmillan.
- Stephenson, W. (1939). The factorial analysis of ability: Abilities defined as nonfractional factors. *British Journal of Psychology*, 30, 94-104.
- Stephenson, W. (1953a). *The study of behavior: Q-technique and its methodology*. Chicago: University of Chicago Press. (Midway Reprints, 1975)
- Stephenson, W. (1953b). Postulates of behaviorism. *Philosophy of Science*, 20, 110-120.
- Stephenson, W. (1961). Scientific creed—1961. *Psychological Record*, 11, 1-25.
- Stephenson, W. (1963). *Amelioration of political conflict*. Unpublished manuscript, University of Missouri.
- Stephenson, W. (1967). *The play theory of mass communication*. Chicago: University of Chicago Press.
- Stephenson, W. (1970). Factors as operant subjectivity. In C. E. Lunneborg (Ed.), *Current problems and techniques in multivariate psychology: Proceedings of a conference honoring Professor Paul Horst* (pp. 33-48). Seattle: University of Washington.
- Stephenson, W. (1972a). Applications of communication theory: I. The substructure of science. *Psychological Record*, 22, 17-36.
- Stephenson, W. (1972b). Applications of communication theory: II. Interpretations of Keats' "Ode on a Grecian Urn." *Psychological Record*, 22, 177-192.
- Stephenson, W. (1973). Applications of communication theory: III. Intelligence and multivalued choice. *Psychological Record*, 23, 17-32.
- Stephenson, W. (1974). Methodology of single case studies. *Journal of Operational Psychiatry*, 5(2), 3-16.
- Stephenson, W. (1975-1976). *Newton's fifth rule: An exposition of Q pro re theologica, pro re scientia*. Unpublished manuscript.
- Stephenson, W. (1976). Q-methodology: Conceptualization and measurement of operant effects of television viewing. *JCATS: Journal of the Centre for Advanced Television Studies*, 4, 17-18.
- Stephenson, W. (1977). Factors as operant subjectivity. *Operant Subjectivity*, 1, 3-16.
- Stephenson, W. (1978a). Concourse theory of communication. *Communication*, 3, 21-40.
- Stephenson, W. (1978b). Applications of communication theory: IV. Immediate experience of movies. *Operant Subjectivity*, 1, 96-116.
- Stephenson, W. (1978c). The shame of science. *Ethics in Science & Medicine*, 5, 25-38.

- Stephenson, W. (1980a). Q methodology and the subjectivity of literature. *Operant Subjectivity*, 3, 111-133.
- Stephenson, W. (1980b). *Quiddity College*. Unpublished manuscript.
- Stephenson, W. (1985). Q-methodology and English literature. In C.R. Cooper (Ed.), *Researching response to literature and the teaching of literature: Points of departure* (pp. 233-250). Norwood, NJ: Ablex.
- Tannenbaum, P. H. (1972). Studies in film-and television-mediated arousal and aggression: A progress report. In G. A. Comstock, E. A. Rubinstein, and J. P. Murray (Eds.), *Television and social behavior. Vol. 5. Television's effects: Further explorations* (pp. 309-350). Washington: Government Printing Office.
- Thompson, J. W. (1962). Meaningful and unmeaningful rotation of factors. *Psychological Bulletin*, 59, 211-223.
- Toulmin, E. S. (1972). *Human understanding: Vol. I. The collective use and evolution of concepts*. Princeton: Princeton University Press.
- Ward, J. (1886). Psychology. *Encyclopaedia Britannica* (9th ed., Vol. 20, pp. 37-85). Edinburgh: Adam & Charles Black.
- Warshaw, R. L. (1962). *The immediate experience: Movies, comics, theatre, and other aspects of popular culture*. New York: Doubleday.
- Whitehead, A. N. (1953). *Science and the modern world* (Lowell Lectures, 1925). New York: Macmillan.
- Wolfenstein, M., & Leites, N. (1950). *Movies: A psychological study*. Glencoe, IL: Free Press.