NEWTON'S FIFTH RULE AND Q METHODOLOGY: APPLICATION TO SELF PSYCHOLOGY

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Abstract. A theory of self is indicated which is a direct application of Newton's Fifth Rule. The subjectivity of anyone's autobiography is subject to the Rule, by transformation into operant factor structure. The formulation is fundamental, dependent upon factor (quantum) theory. The principles are introduced in terms of Virginia Woolf's autobiographical *Orlando*: they apply, of course, to any autobiography and are the foundations for the science of self in the subjective framework.

INTRODUCTION

Psychologists are likely to agree that much that is central to the Self can be found in a person's autobiography. Kurt Koffka (1935), for example, said so.

In an unpublished work on *Q Methodology and Psychoanalysis* (Stephenson, 1954), I had quoted with some excitement from Virginia Woolf's novel *Orlando* (1928), in which Orlando asks, ecstatically, Who am I? and What am I? Notwithstanding its literary impressionism, the novel is clearly autobiographical, about a lifelong search for her Self, symbolized by an obsession to write a prize poem "The Oak Tree."

Operant Subjectivity, 1982(Jan), *5*(2), 37-57.

In the final fifteen pages of *Orlando*, Virginia Woolf provides her answer to the search in an outburst of literary alchemy and, in my view, psychological gold. I propose to transform the novel of some 200 pages into a single operant factor (quantum) structure; and it is appropriate that this application of Newton's Fifth Rule to Self be introduced in a literary-autobiographical context, to retain something of the creativity and imagination inherent in subjectivity. The application, however, could be to anyone's autobiography, or indeed biography. Orlando's is chosen because it corresponds very largely to what is to be expected from an application of my version of Newton's Fifth Rule (Stephenson, 1980b).

ORLANDO'S AUTOBIOGRAPHY

The novel is available for anyone to read, and I shall have to take much of it for granted. It fictionalizes a life span of thirty-six years, of growing slowly in a context of English literature and history, from Elizabethan times to midnight, October 11th, 1928 when Orlando finds her Self in a trance-like ecstatic mood, after a lifelong endeavor to write a prize-winning poem. Orlando appears first as a boy, scion of a noble family in Queen Elizabeth's time; he is later at the Court of King James, madly in love with a Russian Princess, Sasha, who jilts him. In disgrace at Court he retires into solitude and to his love of writing romantic dramas. His poem, "The Oak Tree," is begun. Later, in King Charles' time, he goes to Constantinople as Ambassador, and is created a Duke. There he secretly marries a gypsy, Rosita Pepita. The Turks ravish the city, and Orlando, in a trance, suffers (or enjoys!) a sex transversion. She is now a woman, unchanged in mind, beautiful, and free. She lives the life of a gypsy, but in Queen Anne's reign returns to England to claim her Dukedom and its feudal domain--its vast castle, wealth, servants, dogs, deer, vistas and all. She enters high society, somewhat notoriously, and fawns on the *literati*: From her London house, dressed as a man, she has secret assignments with Nell and her covey of prostitutes. Thus

we follow her, with the wit and eloquence of Virginia Woolf's imagination, into Victorian and Edwardian days. She is then thirty-six and unmarried.

Virginia Woolf, clearly, "lived almost as much in the past as in the present" (to quote from the publisher of my Penguin copy of 1928): Literature was indeed her obsession and brilliant avocation, and writing a prize poem her Wild Goose Chase.

At thirty-six, Orlando breaks an ankle one day and, by mere chance, is helped by Marmaduke Borthrop Shelmerdine, an heroic sailor (from Scotland of all places), whom she promptly marries, and he as inconsequentially leaves for his ship, which is forever "sailing around the Horn." In March, 1928, she gives birth to a son. Finally, on October 11th, 1928 she is in Marshall & Snelgrove's store on Oxford Street in London, from which, in a trancelike state again, she returns to the old oak tree on her estate. "Time has passed over me," she cries, "is it now the oncome of middle age?"

Except for the literary licenses, the story is like anyone else's autobiography, an episodic history upon which one takes backward looks.

MANIFESTATION OF SELF

In the final pages of the novel, Orlando is driven, inexorably, to look back upon herself, into her past. Under the symbolic oak tree, on her estate, she calls out aloud for--*Orlando*...as if, indeed, the person she wanted was expected, but might not be there. Why shouldn't she call out aloud? After all, standing there, is she not, she avows, just one of a thousand different selves she really is? She calls out aloud again for Orlando. But the one she expects doesn't come, and she wonders about it:

> ...these selves of which we are built up, one on top of another, as plates are piled on a waiter's hand, have attachments elsewhere, sympathies, little constitutions and rights of their own, call them what you will (and for many of these things there is no name) so that one will come only if it

> is raining, another in a room with green curtains, another when Mrs. Jones is not there, another if you can promise a glass of wine--and so on; for everybody can multiply from his own experience the difficult terms which his different selves have made with him--and some are too wildly ridiculous to be mentioned in print at all. (p. 200)

No Orlando answers her call. "All right, then," she says, "I'll try something else." A biography is considered complete, she muses, if it merely accounts for six or seven selves, "whereas a person may well have as many thousand." She therefore chooses selectively, reflecting back upon the themes of her own biography--the boy who saw Shakespeare, who handed Queen Elizabeth the bowl of rose water; the lover of Sasha; the gypsy in Constantinople; the girl in love with life...and the rest as in the written pages of *Orlando*. She could have called for anyone of them. Instead, the one she needed was somehow being kept aloof--every self would appear but the one she was expecting...she adds:

> ...as happens when, for some unaccountable reason, the conscious self, which is the uppermost, and has the power to desire, wishes to be nothing but one self. That is what some people call the true self, and it is, they say, compact of all the selves we have in us to be; commanded and locked up by the Captain self, the Key self, which amalgamates and controls them all. (p. 201)

This Key self was what Orlando was calling for. Who, then? A woman, age thirty-six? A snob? My ancestors? Proud of them? Yes. Greedy, luxurious, vicious? Am I? (Don't care a damn if I am.) Spoilt? Facile, glib, a duffer? Romantic? Clumsy?...and so on for a hundred more: I like peasants, I understand crops, I write poems...Fame!...Seven editions for my prize poem...There flies the wild goose, away into the sea.... Now she fails to call "Orlando," and falls into deep thought:

> ...*She was now darkened, stilled, and became... what is called, rightly or wrongly, a single self, a real self. And she fell silent. For it is probable that when people talk aloud the selves (of which there may be more than two thousand) are conscious of disseverment, and are trying to communicate, but when communication is established they fall silent.* (p. 204)

It was all of this, and much more in Virginia Woolf's backward look at her life, that ends under the oak tree, now "grown bigger, sturdier and more knotted than she had known it, somewhere about the year 1588," but still in the prime of life. She wants to conduct a ceremonial burial of her prize poem, under the tree, into its roots; but it becomes inconsequential, and the copy lies beside her "dishevelled and unburied." The obsession has ended, its disillusionments now of no consequence or concern.

One expects a novel, even autobiographical, to end on the note of lovers united: and at precisely midnight, October 11th, 1928, when Orlando grasped her Self, her husband returns. "Here!" she cries in ecstasy, "baring her breast to the moon." But the Goose also flies into the night.

THE COMMON VERSION OF SELF

Virginia Woolf's version of a Common Reader's Self is a recollection of a thousand selves, piled one upon another, each attached to its particular events; and the wish is to be *one* Self, which is everything of the past, a "single, real self."

What stops its realization? It is because, she says, of the disseverment into the thousand selves, which "are trying to communicate," to make sense of it all, and the result is...silence. The demand is too much to make.

Yet it is not so. For is it not true that on October 11th, 1928, at midnight precisely (and thus at the edge of another day), Orlando experiences the very Self she has called for, emergent in an ecstasy of feeling? The breast she offers to the moon is for all

mankind, free at last of obsessions, full of her own exalted tenderness.

What, then, is the psychological gold in this? One may suppose that I am being allegorical, speaking a parable: but it is essential to know where the beginnings are in a scientific approach to Self, and the beginnings are in just such an autobiography, and in just such a manifestation of Self, at any point in time. The descriptions of historical episodes such as anyone may provide, whether a novelist or anyone else, are transformable, *toute de suite*, into operant factor structure in league with my version of Newton's Fifth Rule (Stephenson, 1979). The process is not one of "interpretation," of plucking the novel apart to find its latent content in psychoanalytic terms. On the contrary, the process is left alone, to stay with its meaning to the Common Reader who knows nothing of psychoanalytic or any other dynamic psychological theory, but who can *enjoy* the novel, as one can one's own autobiography, to feel its drama and grasp something of the "untranslatable, sensuous immediacy of its images" (as Susan Sontag says it in her ineluctable *Against Interpretation*, 1961). Interpretation, such as into the homosexuality of Virginia Woolf and Orlando, would give a "shadow world" of meaning, and lose sight of what is really at issue in the common, manifest meaning.

The concern in general, then, is with our own manifest histories, described in our own words. They will always be episodic, of many stories told, each with its own self and attachments--"its own sympathies, little constitutions and rights of their own." The theories of concourse, Q methodology, and Newton's Fifth Rule provide a way into such complexities of communicability as we indicate below.

THE CONCOURSE

The concourse (Stephenson, 1980a) for Orlando is Virginia Woolf's statements of self-reference, interwoven throughout the pages of the novel, indicative of the events in her autobiography. They are statements, typically, as follows:

There was a serenity about her which had the look of innocence.
She always had a liking for low company.
Nothing is more heavenly than to resist and to yield; to yield and to resist. Surely it throws the spirit into such a rapture as nothing else can.
Two things alone remained in which she now put her trust--dogs and nature.
Candid by nature, and averse to all kinds of equivocation, to tell lies bored her.
Love is slipping off one's petticoat and--but we know what it is: Orlando was not of this sort.
She looked just as pouting, as sulky, as handsome, as rosy as ever she had been.
The comforts of ignorance seemed utterly denied her.
The old literary credulity was still alive in her: even the blurred type of a weekly newspaper had some sanctity in her eyes.
...and so on.

It is a straightforward matter to collect 100 such statements from the pages of the novel, picking them as one would flowers in a bountiful garden for their emotional, subjective, image-forming nature--that is, for what one *feels*, not what is *factual*. Indeed, as one looks through the 100, each written on a 3×5 card, one can almost begin to write a novel or poetry oneself from their innocent juxtapositions, a matter of considerable interest on its own account, as indicated in my paper on the application of Newton's Fifth Rule to creative aspects of *education* (Stephenson, 1980b).

As in all Q-method studies one has to decide upon a Q sample, either by selecting statements randomly from a concourse, or by way of a Fisherian design (Stephenson, 1953). The latter is preferable, providing as it does a basis for balancing the sample with respect to manifest content. The concourse for Orlando appeared to cover four categories of experience: (*a*) her moods, (*b*) her literary interests, (*c*) her social behavior, and (*d*) particular self-refer-

TABLE 1
Fisherian Design for Orlando

Effects	Levels			
experience	mood (*a*)	literary (*b*)	social behavior (*c*)	self (*d*)
valency		positive (*e*)	negative (*f*)	

ences. The collection of 100 statements could be assigned, therefore, into the Fisherian design in Table 1. Thus, the first statement above fits into *ae*, the second into *cf*, the third into *df* and so on. The 4×2 design, replicated five times, gave a Q-sample size $n = 40$. The design is a technical device, to ensure that the Q sample is not biased as between the different levels of experience and feeling (valency). As the surveyor levels his theodolite, and the biologist focuses his microscope upon a slide, so in Q technique there is this leveling and focusing, to ready the Q sample for the purposes it has to serve. The design in no way enters critically into *factor* treatment of Q sorting, to which Q methodology is principally directed.

Q SORT REPRESENTATION

With the Q sample, Q sorts can be performed to represent Orlando's progress through the episodes of her autobiography. Had Virginia Woolf been alive she might have performed Q sorts herself. She could, in principle, have represented any of the "more than two thousand selves" she knew, with conditions of instruction of her own choosing--and the same applies methodologically to anyone about the innumerable selves of their own lifetime. No Orlando, however, answered the first call from amongst her abundant selves. She therefore has to be selective, musing that a biography is complete enough if it accounts for "six or seven

selves." We could take Virginia Woolf at her word, and ask her to represent the few selves she herself chose selectively, from the boy who saw Shakespeare and handed Queen Elizabeth a bowl of rose water, to the moment of ecstasy when she bares her breast to the moon. In doing so, the Self she called for does not appear until the last moment of ecstasy--none of the "six or seven" would do, because, she said, of "disseverment."

Virginia Woolf is of course dead. Failing Q sorts from her, it is of interest to perform the Q sorts she might have done; and from the context of the novel it is not an insuperable task to provide Q sorts to represent the selected episodes of Orlando's calls for selves. This I myself have attempted, for the following eleven conditions of instruction:

1. As Queen Elizabeth saw Orlando (boyhood)
2. The young Orlando in love (Sasha)
3. After Sasha's deception (outcast)
4. Turmoil (before going as Ambassador to Turkey)
5. As gypsy in Turkey (sex change)
6. En route to England
7. Home in her "great house"
8. With prostitutes (London, Queen Anne's time)
9. Orlando married (Queen Victoria's time)
10. Birth of a son (and publication of a poem)
11. Ecstasy, as one self

It will be objected that this is likely to fall far short of what Virginia Woolf would have done, and that it is merely guesswork. However, anyone else can repeat my experiment if so wished, which of course is what makes science in Q methodology. In the present case I am being explicatory rather than concerned with actualities, to point the way to a science for self. It is surprising, nevertheless, how far this simple study reaches.

I performed the Q sorts over a period of four days, two or three a day, spaced over the day to reduce confounding. For each, I re-read the pages of *Orlando* involving the episode to freshly acquaint myself with its content, and then did my best to represent the

novelist's description into a Q sort, by giving saliency to my own *feelings* about the episode, as grasps (indeed) of what Susan Sontag called the "untranslatable sensuous meaning of the images." There is no way, other than in such language, to describe the saliencies, the feelings of felicity, of enchantment, etc. underlying the Q sorting. Q sorting aparently captures something of the literary flavor, however crudely and approximately only.

The Q sorting is therefore purely descriptive, expressive of one's natural feeling. Nothing theoretical, such as ideal self, or significant other, or me-you interaction, or any other a prioristic conception of self is anywhere in the conditions of instruction for the Q sorts. The concern is with natural experience into which we are probing by way of concourse and factor (quantum) theories.

The eleven Q sorts were duly correlated and factor analyzed, with rotation to a varimax solution, and provided the operant factor structure of Table 2. The structure is operant, inherent in the situation: it was as much a surprise to me as it would have been to Virginia Woolf. It is impossible to produce these structures by conscious effort: they are essentially

TABLE 2
Representation of Orlando's Selfhood

Condition	Operant Factors A	B	C
1. Boyhood (Queen Elizabeth)			X
2. In love with Sasha	-	-	-
3. After Sasha's deception			X
4. Turmoil			X
5. Gypsy in Turkey (sex change)	X		
6. En route to England	X		
7. Home in her "great house"	X		
8. With prostitutes	-	-	-
9. Orlando married	X	X	X
10. Birth of a son		X	
11. Self (midnight, Oct. 11th, 1928)	X		

(Note: X = significant loading, all other values are insignificant.)

inductive, a basis for newly created complexes of subjective significance, and are attributable, as one will see, to my version of Newton's Fifth Rule.

THEORY OF FACTORS (Q)

Three factors emerge (A, B, C) and two Q sorts (2, 8) are on none. Apparently there is some "disseverment."

It is our practice to show the structure to the subject, for observations about it. Had Virginia Woolf done the Q sorting, her explication would surely have been most interesting. With no knowledge of what the factors actually are, she would have noticed the disseverment, and she might well have deduced that factor A was near her *real* self. She could well have been puzzled about factors B and C, and why Q sort 9 (Orlando married) should have all three factors upon it. She might have guessed that B and C are truly disseverments, and with a little probing, she might have said *why*. About Q sorts 2 and 8 she would have been somewhat hesitant, perhaps, to venture an opinion.

Then we would have shown her the actual factors, each a different array of the 40 statements, ordered from most positive to most negative in attributed feeling. The only instruction we would introduce, if necessary, would be to ask for the underlying feeling at issue (Peirce's law), different for each disseverment, each factor (A, B, C), each unattached Q sort (2, 8).

The factor theory (Q) is that all subjectivity is transformable, by way of concourse and feeling, into operant factor structure (Stephenson, 1980a). The structures and their factors are purely *implicit*, the Q sorters being quite unaware of them, and surprised to see what comes from their Q sorting. When shown the factors they may recognize them readily as self referent, e.g., as one of the selves for which Orlando was calling. Often, however, the selves are grasped as *new*, fresh insights into self: and these, particularly, are associated with strong feelings, as for Orlando's ecstasy (and silence) on October 11th, which appear to have their roots in factor A.

PRINCIPLES OF INTERPRETATION

Factors, everyone knows, have to be interpreted. The word "interpretation," however, has down the ages had two very different meanings. One is *ars intelligentia*, as understanding and synthesis *ab initio*; the other is *ars explicandi*, as explanation and analysis. Modern science, very largely, pursues the latter, of analysis into constituent elements, and psychology and psychoanalysis followed suit. Q methodology, and the subjective science it pursues, look instead for understandings, as syntheses, from the ground upwards into meanings.

The concern, therefore, is not to probe into Orlando's homosexuality, castration fantasies or the like (with which psychoanalysis can of course make hay), but to go in the opposite direction, to look for syntheses, for the "whole, real self."

Thus, we suspect from our theory that factor A, born of ecstasy, would have a *new* meaning for Orlando, as perhaps the "whole, real self" she was calling for so fervently. The other factors, B and C, would perhaps be less *new* for her. The unstructured Q sorts, 2 and 8, would perhaps be indicative of residual confusion, of unresolved aspects of herself or the like.

THE FACTORS INTERPRETED

Factors A, B and C are in relation to one another, in spite of their "disseverment," and it is best to begin with factor C.

Factor C is for Q sorts 1, 3, 4 and part of 9. In some sense the "attachments" are with boyhood interests in death: the characterizing statements for the factor are the following:

> ...all ends in death...she is compounded of many humors--melancholy, indolence, passion, love of solitude...she was no satirist, cynic, or psychologist...nobody accused her of being one of those very quick wits who run to the end of things in a minute...what more terrifying revelation can there be than it is at the present moment?...what

> a phantasmagoria the mind is and meeting place of dissembles.... (And so on.)

I had forgotten when I began this study that Virginia Woolf had taken her own life, in 1941, in fear of insanity. The factor, *inherent in her concourse* (as I must put it), is testimony to a profound "attachment" to death. Whether she would have acknowledged it, recognizing it as one of her dominant selves, is a moot point. She was at the height of her success in the late 1920s when *Orlando* was written: but the ominous "attachment" could well have been garnered in 1928.

But that is running ahead, and the reader will say that I am allowing my own imagination to run wild: for this one begs some patience.

Factor B is very different: it is for Orlando married (Q sort 9), and for the birth of her son (Q sort 10). One might have thought it would represent a fulfillment, but the factor is in fact as follows:

> She was kind to dogs, faithful to friends, generosity itself--but love? It has nothing to do with these things...I am growing up: I am losing my illusions, perhaps to acquire new ones...change is incessant, and change would never cease...love is slipping off one's petticoat and--but we know what it is: Orlando was not one of this sort... She had a great variety of selves to call upon... Orlando had a faith of her own. Poetry can adulterate and destroy more surely than gunpowder. The poet's is the highest office of all.... (Etc.)

These are the statements characterizing factor B, and in none is there a signal of love or fulfillment. Actually, Orlando's marriage was largely inconsequential, a matter of convenience, her husband going off to sea all the time to sail heroically "round the Horn." She had bought a wedding ring to be in fashion, and married Marmaduke Borthrop Shelmerdine purely by chance rather than in bliss. The birth of her son is given a scant two lines in *Orlando*, that it was born on "March 20th, at three o'clock in the

morning." She would have devoted ten pages if one of her elkhounds had littered.

What Virginia Woolf would have made of the factor is of course guesswork. But it is unlikely that she would have missed the unhappiness of her own childlessness, nor could she have missed the symbolical publication of her prize poem at this time, when her son was born. The poem, she might have admitted, was her obsession, her voracious appetite for literature: she had kept it all her life, on a piece of parchment, tucked always into her bosom.

We now come to factor A. This covers Orlando's episodes as a free-loving woman--gypsy, Lady in high society, and married (Q sorts 5, 6, 7, 9 and 11 of Table 2). The statements characterizing factor A are as follows:

> As pouting, as sulky, as handsome, as rosy, as ever she had been...love was her whole existence ...she is a woman, and a beautiful woman in the prime of life...the very fabric of her life is magic...she is excessively tenderhearted...the same brooding meditative temper, the same love of animals and nature...she could always say what she thought. (And so on.)

It surely is indicative of a happy woman, free-forming, feministic. But if it had been shown to Virginia Woolf, would she have accepted it?

We recall that at midnight, October 11th, 1928 (for we must be specific about such matters), Orlando calls for herself--Orlando?--and then falls silent: Q sort 11 sought to capture this silence. About it, we read, and I repeat:

> *The whole of her darkened and settled...all is contained, as water is contained by the sides of a well. So she was now darkened, stilled, and became...what is called, rightly or wrongly, a single self, a real self.... For it is probable that when people talk aloud the selves (of which there may be more than two thousand) are conscious of disseverment, and are trying to communicate, but when com-*

munication is established they fall silent. (p. 204)

No reader of *Orlando*, or of Virginia Woolf's diaries, can miss the cogency of the sentences which characterize factor A, as at the core of her femininity--magic, pouting, handsome, tenderhearted, brooding, outspoken, in love with life--these are the Captain of her Self.

Only ten of her former selves have been called upon as in some measure important in her life. At the end, in an outburst of ecstasy, and deep silence, the one Self appears and is recognized (and will be so, probably, for the future, for one does not bare one's breast to the moon without acknowledgement of man's needs, endurance, and madness alike).

Again, it will be said, I am allowing my own imagination to run wild. But it is scarcely the case: *the factors are inherent to the concourse, and come naturally from it as syntheses.*

NEWTON'S FIFTH RULE CONNECTION

In the above study it may seem enough to have made the point that anyone's autobiography is transformable in the above manner to operant factor structure. Obviously, it lends itself to development, into a theory of the natural self.

However, its significance would be lost if this is all that it involves or promises. Its additional importance is the evidence it provides for the all-pervasiveness of Newton's Fifth Rule, my version of which is as follows:

> Rule V is that different hypotheses for a concourse, none capable of proof or disproof, are subjective hypotheses; therefore, determine operant factor structure for them--this will offer opportunity for induction of new hypotheses inherent in the concourse. (Stephenson, 1979)

In the above study, for Orlando, the conditions of instruction for the Q sorts were apparently straightforward, requiring descriptions of episodes, for ex-

ample as to what (in terms of the Q sample) Orlando felt he was like in boyhood (Q sort 1). It is the Q sorter's subjectivity that is at issue, reflecting upon lived experience. When the concern is with subjective statements (as for the concourse and the Q sample), there is no way to prove or disprove anything. Even if we could go back to relive the experiences, they remain (as Newton knew) as *subjective* hypotheses. The concern is never with matters of fact, such as "a son was born on March 20th at 3 o'clock in the morning." Thus, each of the conditions of instruction in the above study is in the form of a subjective hypothesis about Orlando. What the Rule says is that by way of operant factors new hypotheses are possible, *inherent in the concourse.* The operant factors are A, B and C in the above case; and by way of the fundamental induction equation (Stephenson, 1980a) an estimate of these is achievable, from which it becomes possible to reach the new hypotheses, namely, the *selves* coalesced, or suffering disseverment, as in Orlando's case.

Now this could be merely fortuitous, it could be argued, a trick of a technique. However, there follows the profound matter, that what is at issue is rooted in factor theory, which has the same mathematical and functional status in psychology as quantum theory has in nuclear physics (Stephenson, 1981). It is surely obvious that the phenomenon with which we are dealing is inordinately complex, as is true of nuclear structure of the atom. There is no logical way one can account for the orderly arrangement of statements into *factors*, any more than of the elements in an atom making quarks and antiquarks, other than in terms of Group Theory, at the mathematical roots of both quantum and factor theories. The "untranslatable, sensuous" feelings that comprise Orlando's concourse could never have been brought to selves, without factor theory. Nor could any quark have been discovered without quantum theory.

In this context, therefore, one can put forward at long last a genuine scientific basis for self psychology, born of necessity (and sufficiency) in my version of Newton's Fifth Rule.

FOUNDATIONS FOR SELF PSYCHOLOGY

The foundations should be seen in the context of important advances now being made in theory of knowledge. Most generally, this is in terms of knowledge which has *no* self reference (objective science, and *information theory*, e.g., Brillouin, 1962), and knowledge which is intrinsically self reference (subjective science, and *communication theory*, Stephenson, 1980a): The former has all the glories of modern science to show us; the latter is in its infancy but has already solved the problem of consciousness (it is merely communicability, with or without self reference, Stephenson, 1980a), and it now offers to give self the same scientific foundations.

At the outset, for the latter, the significance of concourse theory is of paramount importance (Stephenson, 1980b). Only when one recognizes the semantic richness and comprehensiveness of almost any concourse in Q, and any Q sample drawn from it, can credibility be given to transformations into factors. But, as was already indicated in my application of Newton's Fifth Rule to educational psychology (Stephenson, 1980b), communicability in literature, in common conversations, in mass communication and wherever self reference is involved, is far richer in inductive (meaningful) possibilities than any of us dared to believe before.

Next, factors are not mere "froth" tossed up from the mind, but have firm roots in a person's past experience. Examples are reported in "Michael Polanyi, Science and Belief" (Stephenson, 1980c). If the factors in the above study had been provided by Virginia Woolf from data such as the above, one may begin to understand the penetration into so-called mind by factor theory. That factor theory in Q methodology[1] parallels quantum theory in nuclear physics,

[1]The parallelism does not apply to factor theory for R methodology (psychometrics, the technology of individual differences) because there is no standard unit in R. There is the necessary unit in Q, the *quantsal* (*quant*ification of *sal*iency), the same for

gives credence to the way in which we must suppose communicability (the mind) tends to provide clusters of meanings--for example, "the more than two thousand selves" of Orlando, and the limited number of operant factors we find in Q methodological studies, as in the above case for Orlando.

Next, *selves* are always reached by self-reflection, *by looking back* (though one may look forward on occasion), as one does instantly in a mirror. One can say, indeed, that we go through everyday life largely oblivious of self, naturally living our social and private lives, without being conscious of the selves we can call upon, as Orlando did, when required. Selves are intrinsically implicit, got by reflexive feeling.

Feeling, not rationality, is the substance of self and at the core of factors. Only in ecstasy, and deep silence, could Orlando reach her real self--so the fiction goes--but feeling is at the core of Peirce's *law of mind*, and at that of *induction* quite generally (Buchler, 1950).

Finally, there is Newton's Fifth Rule and the solution it offers for all induction. The real self of Orlando remains, empirically, as *her* induction, when she grasps what factor A means--and so it is for all understanding of one's factor structure and its factors, as it is of *anyone's* understanding of the same.

PRAGMATICS

How all of the above "works" has been sufficiently introduced above in the treatment of Virginia Woolf's *Orlando*. But of course much remains to be explicated.

Most important, pragmatically, is the determination of what is, and what is not *operant*. The term is used with the basic meaning of B.F. Skinner's term, in the context of factors. The factors usually appear sufficiently defined by a varimax solution, for centroid factor analysis: but this is a purely statistical cri-

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all Q sorts, all Q samples, all factors, for all cultures.

terion, and it is not sufficient in itself to determine operant factors. The additional criterion has to be how far a factor is *schematical*, and how far there is one feeling running through it, from one end of the factor array to the other.

Factor theory is of course a complex matter, and nothing in the above offers an easy opening into psychometric views of selfhood. The theory, besides its mathematical-statistical groundwork, necessitates a logic-of-science in which indeterminacy and relativity are paramount, as in nuclear physics. Laws are *used* in Q, and are not conceived primarily as regularities in nature (Stephenson, 1980a, 1980b, 1980c, 1981).

Nor can we overlook the intrinsic *implicit* form of operant factor structure and factors. The individual is quite unaware of what the factors are that come from Q sorting. The ramifications of this are far-reaching. Though implicit, the factors are not to be conceived as substitutes for ego structures, or for extrusions of the unconscious (in the psychoanalytic sense of the word). They are syntheses of self, not analytic plucking of it into parts--notwithstanding what Virginia Woolf described as disseverment, and what we reach as factors.

In our backward looking, there are indeed thousands of selves to purview, for anyone. In the above study, only ten former selves were called upon, as in some measure important in Orlando's life. The final *one* self she calls for is determined by a complex set of relationships--that it was evoked in an episode of ecstasy; that the disseverments "make sense" (factors B and C are cogent in this respect). Orlando (and Virginia Woolf) called for a self, the *one* real self, that should be "compacted of all the selves we have in us to be," as a Captain self, "the Key self, which amalgamates and controls them all" (Woolf, 1928: 201). We found, instead, that factor A covered only those selves in which she was clearly feminine (Q sorts 5, 6, 7, 9, 11): and indeed Virginia Woolf was intrinsically, notoriously feministic. The other factors, B and C, belied any Captain or Key, sovereign over all. Moreover, Q sorts 2 and

8 are on no factors: they are unstructured, as if suppressed. One is for the violent love for the Russian beauty; the other is for subsequent disillusionment, the anguish and despair at Sasha's deception. We may suggest, perhaps, that this is one way, methodologically, that *Freud's law* (Stephenson, 1953) is at issue, of Orlando's defensiveness vis-a-vis madness (Q sort 2) and her sexuality (Q sort 8). Q sorts not in any structure, in short, may be as significant for understanding, as any within structure. If Orlando had been a real person in our study, we could have undertaken a probe into the Sasha episodes, with a concourse specifically put together for the purpose.

The final point to be made, however, is that there is nothing in the above to say that the selves are or are not controlling influences. There are some psychologists who will maintain that selves are *products* of behavior, not *causes* (e.g., Goffman, 1959). About this, we need a cautionary word: the self, as it is conceived above, is a very complicated matter indeed, and simple conceptions about it are not warranted. A detailed study of myself, by myself (for what else is subjectivity!) suggests that in one long lifetime, at least, creativity and self as cause, and not mere consequence, go hand in hand. It was Epictetus (ca. 110) who said that no man is free who commands not himself: one would say, instead, that no man is creative who commands not himself.

Be this as it may, it offers food for thought that by way of the above pragmatics and its supporting theory, it is possible to transform all three volumes of Virginia Woolf's *Diaries* into a not very elaborate operant factor structure, inherent in her bountiful self references, and that the same transformations are readily attainable for the autobiographies of each and every one of us, by way of Newton's Fifth Rule.

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REFERENCES

Brillouin, L. *Science and information theory.* New York: Academic Press, 1962.

Buchler, J. (Ed.). *The philosophy of Peirce: selected writings.* New York: Harcourt Brace, 1950.

Goffman, I. *The presentation of self in everyday life.* New York: Doubleday, 1959.

Koffka, K. *Principles of gestalt psychology.* London: Kegan Paul, Trench, Trubner & Co., 1935.

Sontag, S. *Against interpretation and other essays.* New York: Dell, 1961.

Stephenson, W. *Q methodology and psychoanalysis.* Unpublished manuscript, 1954.

Stephenson, W. *The study of behavior: Q-technique and its methodology.* Chicago: University of Chicago Press, 1953.

Stephenson, W. Q-methodology and Newton's Fifth Rule. *American Psychologist*, 1979, *34*, 354-357.

Stephenson, W. Consciring: a general theory for subjective communicability. In D. Nimmo (Ed.), *Communication Yearbook 4.* New Brunswick, NJ: Transaction Books, 1980. Pp. 7-36. (a)

Stephenson, W. Newton's Fifth Rule and Q-methodology: application to educational psychology. *American Psychologist*, 1980, *35*, 882-889. (b)

Stephenson, W. Michael Polanyi, science and belief. *Ethics in Science and Medicine*, 1980, *7*, 97-110. (c)

Stephenson, W. Cyril Burt, quantum theory, and Q: historical note. *Operant Subjectivity*, 1981, *4*, 120-134.

Woolf, V. *Orlando: a biography.* New York: Penguin Books, 1928.

...timidity and technicalization go hand in hand on the shady side of the street. (H.D. Lasswell)