HOW TO MAKE A GOOD CUP OF TEA*

William Stephenson
University of Missouri

ABSTRACT: Harold Lasswell briefly considered a quantum theoretical approach to political science in 1964, with reference in particular to conflictual possibilities. His key concepts correspond to those in Q methodology, and thus to an objective science for subjectivity. Lasswell's duration *is subjectivity as a cosmic phenomenon; his* decision structures *correspond to Q factors. The correspondances are exemplified with reference to subjective science as it is now developing. Self referentiality could have been as profound for Lasswell as it is for Q methodology, in a quantum-theoretical framework.*

Introduction

There is a difficult task ahead which is represented cogently in a work by a master of political science, *The Future of Political Science*, by Harold Lasswell

---

Author's address: 2111 Rock Quarry Road, Columbia MO 65201.

*Originally entitled "How to Make a Good Cup of (Political) Tea," and read at a panel on "Subjectivity in Psychological and Political Theory: A New Paradigm?" International Society of Political Psychology, Washington, 1985.

Operant Subjectivity, 1987(Jan), *10*(2), 37-57

(1964). On the one side there is what Lasswell described as the "fragmented intellectual and professional outlook" of his profession. The piecemeal surveys of voting and studies of campaigning and the like, need consolidation. Faced with the rapid growth of government, policy problems are increasingly evident, and Lasswell proposed a system in which experimentation, the building of prototypical interventions, and full-scale governmental intervention can be addressed by way of Centers for Advanced Political Science. There is much wisdom in the proposal. On the other hand, it is only at the conclusion of some 200 pages of this wisdom that we are told what kind of science, as such, Lasswell had in mind. Or so it seems. What he proposed, in a footnote, is in effect Q methodology and its quantum-theoretical approach to subjective science.

You may wonder, but I shall try to prove it to you.

Lasswell's Quantum Jump

On page 221 of his book, Lasswell asks the following question:

> ...how shall we conceive of subjective events, to occupy a central position in the problems of man and his future?

His answer was to ask us to imagine events, from the beginning of time, as expressions of one fundamental energy, finite in amount, and doomed to voidness at the end of time. You might suppose that he was thinking of the Second Law of Thermodynamics, of entropy, the "running down" of the universe to its "heat death." He was not. *The energy he postulated was subjective, called by him duration*. This, indeed, was an astonishing conception.

He gave *duration* two distinguishing properties, one "awareness," the other *referentiality*.

The former is of course our "consciousness," and is no longer viable. The second is central to the "subjective events" about which Lasswell asked his

question: it concerns how, in subjectivity, "past and future are brought into the present."

It is indeed a remarkable concept, whereby knowledge (of some subjective kind) is brought to a conclusion, from which decisions for action are possible--Lasswell called them *decision structures* --which, in his words,

> ...increase the possibility of actualizing inclusive goals in the cosmic process, even if inclusive goals have not been achieved before. (Lasswell, 1964: 237)

But why is it, Lasswell continues, that this subjective energy generates so much conflict? He has in mind "the world of life" as distinct from the world of "science and technology"; but he had already argued (Lasswell, 1964: 5) that differences between these two have reached a vanishing point--shall we treat machines, he asks, with the same deference we give ourselves as advanced forms of life? The conflict he has in mind, however, is surely *subjective*: Objective science characteristically speaks with one voice, with everyone's agreement. His *World Politics and Personal Insecurity* (1935) tells a very different story, of conflict *sic passim*, everywhere about us.

The answer he proffers is in a footnote--the conflict is a matter of quantum theory and Max Planck. Quoting in effect from Lord Lindemann's *The Physical Significance of the Quantum Theory* (1932), Lasswell (1964) writes:

> *Conflicting possibilities* would be contained in the random pattern of direction, length and figure as jumps from various points. (pp. 236-237)

I have italicized "conflicting possibilities." The language may seem rustic and un-Lasswellian. But the meaning in quantum theoretical terms is clear. By "conflicting possibilities" in a given context Lasswell is talking about *complementarity*, perhaps the most

important concept in quantum physics (Tarasov, 1980).

You may understand something of my own excitement when I returned, after two decades, to Lasswell's *The Future of Political Science*, because for 50 years I have been trying to find grounds for subjective science (Stephenson, 1935); and, since 1940, along with Sir Cyril Burt (1940), I have known that factor theory in psychology and quantum theory in physics are twin-like, with the same mathematical and conceptual foundations, as I have indicated in two papers, "Q-methodology, Interbehavioral Psychology, and Quantum Theory" (Stephenson, 1982) and "Quantum Theory and Q-methodology: Fictionalistic and Probabilistic Theories Conjoined" (Stephenson, 1983). If I am speculative, then Lasswell was more profoundly so because he extended subjectivity to the whole cosmos. I was happy enough to apply quantum theory to situations where n=1, the "single case."

Lasswell's Note

It is important to report the note Lasswell wrote at the end of the final chapter of his *The Future of Political Science*. It is as follows:

> The [cosmic] map I have outlined suggests that the subjective event of reference, by bringing models of the past and future into the present, enlarges the context in regard to which behavior--hence social interaction--occurs. This carries with it the potentiality of orderly arrangement of subsequent contexts. The mass-energy precondition of a specific set of subjective events are trivial; however, the "trapping" of duration energies is accomplished by selective intervention in the unfolding future. Conflicting policy programs among living systems may nullify the potential for order by blocking integration within the inclusive context of interaction. Mass-energy units can be arranged in a hierarchy of magnitudes, subjective references can be described according

> to the space-time context alluded to and the complexity and integration of the arrangements referred to in the context; interaction sequences can be described according to the actualization of arrangements in context. Many currents in contemporary thought harmonize in varying degree with this speculative model. (Lasswell, 1964: 236-237)

He pointed to Tellhard de Chardin's (1959) *The Phenomenon of Man*, and to Meyerhoff's (1959) *The Philosophy of History in Our Time*, with its references to Dilthey, Croce, Collingwood, Popper, and many others, as indication of the currents moving in the direction of his "map."

In a letter to *Nature* (London) more than 50 years ago (June 30, 1935), I introduced Q technique and its methodology, which, in factor analytical terms, is itself quantum-theoretical, as I have cited, which brings down to earth Lasswell's lofty symbolization and the thinking in the above note. Every thought and nuance in the note, of "past and future brought into the present," "orderly arrangements of subsequent contexts," of the "triviality" yet concreteness of subjective events, of "living systems" blocking integration "within the inclusive context of interaction," of "mass-energy units," of "space-time" context, of "decision structures" and all else of Lasswell's speculation--all are subtended by the subjective science now developing as Q methodology (Stephenson, 1953; Brown, 1980).

Subjective Science

However, there are differences between Lasswell's speculation and our subjective science. In Q methodology, any notion of subjectivity as a substantive consciousness is rejected as fiction: in its place there is the concept of *communicability*. We are communicable creatures (Stephenson, 1980). Subjectivity is retained to mean referentiality (Lasswell's term) but with respect to *self-reference*, and this retains all of Lasswell's lofty promise for mankind: for if subjectivity is central to the problems of man and his

future, self-reference must be the key to all else. Q technique models self reference. Q factors are themselves theoretical Q sorts, which provide the decision structures to which Lasswell called attention, in Q's case newly created, unknown beforehand to either the Q sorters or to the scientist. The science is sounder than Sir Karl Popper could have made it, as we shall now indicate.

The basic postulate in Popper's (1959) *The Logic of Scientific Discovery* is as follows:

> ...scientific knowledge must be justifiable and independent of anyone's whim. (p. 44)

By *justifiable* he meant that knowledge has to be tested and understood, in principle, by anyone--whence his insistence upon inter-subjective criteria. What he overlooked was the full implication of "independent of anyone's whim." For Popper, this was merely exclusionary--not by an iota can the whims or wishes of the scientist enter into objectivism. Experimentally, however, it means that "whims and wishes" *have to be brought under control*, and this is achieved in Q methodology by way of the principle of quantum complementarity, as expressed in James' Law (Stephenson, 1953), that some Q factors in a given context are "me" (including especially my whims and wishes), whereas others are "mine"--like my clothes, bank account, etc. Such totally different aspects of self-reference co-exist in quantum factor analysis, separating what is justifiable and what is not. Moreover, this is achieved for the "single case" (n=1), thus falsifying Popper's inter-subjectivity criterion.

We can also take him to task about another of his concepts--the question he asked about a "white table."

Popper's White Table

Popper challenged us to find any difference between two statements about a white table (Popper, 1959: 99). The statements were:

(a) I see this table is white.
(b) This table here is white.

Are not these the same, each about someone looking at a white table?

Language, however, is for *use*, and not merely for Popper's logic. Statement (a) is in Popper's objectivist framework, of a person ("I") saying that the table is white, as anyone else can see for himself or herself. The statement is justifiable, without wish or whim.

Statement (b), however, is very different: it can have a thousand different meanings, depending upon how it is spoken and in what context:

"It is *white*!" ...(but I ordered unpolished).
"*It* is white!" ...(then I'm color-blind).
"It *is* white!" ...(why do you contradict me?).

And so on, for a thousand meanings, spoken or not. Emotion, and self reference, is at issue.

Popper says that this is psychologism, and science cannot be made of it, with reference to inter-subjectivity in particular. Actually, the thousand meanings entail the "conflicting possibilities" to which quantum theory applies, and to which subjective science addresses itself. They constitute Q methodology's *concourse*, the self-referential statements from which Q samples are drawn, Q technique applied, and quantumized factors found in a given context.

This is another inroad Q methodology makes into Popperian objectivism, and there are others. The subjective framework provided a solution for Weber's typology (Stephenson, 1962a), and for George Carslake Thompson's (1886/1966) "Assessment of Public Opinion" (Stephenson, 1964). It gave substance to a book manuscript on *Amelioration of Political Conflict* (Stephenson, 1962b) which was ridiculed by political scientists who, with faith in questionnaires and large-sampling doctrine, couldn't conceive of anyone professing to proceed with theory and n=1 situations: the book was never published, but six of its chapters appear (and are still worth

reading) in my *The Play Theory of Mass Communication* (Stephenson, 1967). I mention all of this not to blow a trumpet, but to say that if Lasswell's 1964 note had been at my side, I might have been able to call upon him as ally, for a future of quantum political science.

Meanwhile, Popper's objectivism has cut deeply into social and psychological science, and is responsible, in my view, for the fragmented intellectual and professional outlook to which Lasswell called attention, "trapping" (in Lasswell's *duration*) thousands of fact-finding studies, with tens of thousands of individuals, to little avail for the advancement of knowledge, except for selling toothpaste, Coke, and presidential candidates. The n=1 methodology for subjective science can provide authentic decision structures, as I have shown in my *The Play Theory of Mass Communication* (1967) with particular attention to *Democracy in a World of Tension* (McKeon, 1951), to Buchanan and Cantril's (1953) *How Nations See Each Other*, and Almond and Verba's (1963) *The Civic Culture: Political Attitudes and Democracy in Five Nations*. These studies came to no conclusions in spite of thousands of persons being questioned (14,000 for Buchanan and Cantril; 25,000 for Almond and Verba). The n=1 methodology for subjective science provided authentic decision structures.

Where, however, precisely, is the root in Popper's objectivism? An example, "trivial" as it may seem, is worth report: it gives the title to this paper, and comes from clinical psychology.

How to Make a Good Cup of Tea

Typical of objectivism is a test developed by two clinical psychologists, Griggs and Green (1983), which asks respondents to describe how they would "make a good cup of tea."

First a *norm* is developed by asking 20 nurses to describe how to make tea. The outcome is a list of actions, as follows:

...go to the kitchen
...get the kettle, tea-caddy, tea-pot...

...put water in kettle
...boil the water
...and so on, ending with a cup of tea.

An acceptable sequence was defined as the correct way to make a good cup of tea. There is indeed an acceptable logical order for the actions--one doesn't put tea in the teapot before warming it.

With this test, Griggs and Green set about testing thought-disordered and not-thought-disordered schizophrenic patients. Would the former show thought disorder in making a cup of tea?

Nothing significant was found, notwithstanding the most elegant statistical tests. Every patient seems to have known precisely how to make a good cup of tea. At least we now know a *fact*, that thought disorder of schizophrenics doesn't necessarily reach into making tea!

Observe that subjectivity has been completely ignored--and by this I do not mean that some people may make tea in one way, others in another, and that a *norm* is an average. On the contrary, subjectivity has been *completely* overlooked. As a clinical psychologist I have reported elsewhere about an English gentleman who *suffered*, his wife said, from an obsession about things tea-wise--he collected bone china, and was cranky (she said) about tea-making. When asked how he would make a good cup of tea, he entered into voluminous communicability, all *subjective* (self referential, declarative, emotional), saying "My wife thinks I'm nuts about china"; "Americans don't know how to make tea"; "the very *feel* of bone china is the essence of tea drinking"; "a silver tray for tea time is essential"; "my Royal Doulton is for special occasions"...and so on, almost *ad infinitum*. From this gentleman I collected more than 50 such statements, all *unjustifiable* in Popper's logic, and with a Q sample of 36 of them, he performed eight Q sorts for me, which, duly Q factored, provided the operant factor structure of Table 1.

We shall take the factor analysis for granted. The gentleman's *feelings* are split into three very different parts, represented by factors A, B, and C, respectively. These are what Lasswell described as

Table 1. How to Make a Good Cup of Tea

Conditions of Instruction	Factors A	B	C
1. present feeling (*now*)	X		
2. feeling at the precipitating incident		-X	
3. feeling before coming to USA		X	
4. connoisseur's feeling	X		
5. wife's feeling about your condition			
6. typical American feeling		X	
7. ideal feeling			
8. what your mother felt			X

(X=significant loading, others insignificant)

Planck's quantum jumps. They are in fact *decision structures*, and they can be totally contradictory, as the quantum principle of complementarity foretells. Nor is it mere speculation: each factor is a theoretical Q sort, itself self referent, forged from states of feeling.

The table is Lasswell's "subjective event of reference" put into quantum theoretical measurements. Everything described by Lasswell in the note cited above comes within it.

To begin with, everything is intrinsically subjective; the Q sorter is unaware of the factors; nor can the scientist predict them. Everything is referential: the Q sorts are correlated one with another, bringing past and future into the present in the process. The factors are themselves Q sorts, theoretical, and decision structures, telling us what to do in relation to the subject in this context. It clearly enlarges the context with regard to the behavior at issue: anyone familiar with Q methodology will find the data in Table 1 a "vital sign" (Stephenson, 1985a, in press) for much of clinical psychology. In this context it makes social interaction directly cogent--and all of it is self referential. Therapeutic intervention is in-

dicated--shall it be "internal" (hysteria, obsession, fetish), or "external" (that only old-grandmotherliness is at issue for our English gentleman)? The subjective event is indeed trivial (how to make a cup of tea); but what of entrappment? Is it blocking the gentleman's potential for more authentic self referentiality? And what of the mass-energy units? Do we not have, in Q, a unit of universal stature, the *quantsal*, the same for everyone, for every factor, for every Q study? Does this not provide the hierarchy of magnitudes for factors, in terms of which abductive inference *by the scientist* becomes possible? And this "for every actualization of arrangements in context"--i.e., of factors in context?

There is not a shadow of a doubt that Lasswell was *thinking* in quantum terms in his note, and that notwithstanding the circumlocution, it was very much "on target." The simple phrase "subjective event of reference" is essentially our "behavioral segment," more cogently captured than in my own terminology. For it is the case that *referentiality* is the key to all else in Q methodology, and it is *self* that is pulling the strings. *But it is also as certain that these decision structures are possible only in terms of unjustifiable communicability, i.e., statements such as the English gentleman used, none justifiable in Popperian logic, all self referential, all emotional, all at the hub of our culture*. None of it is remotely the information-gathering, intelligence process described by Lasswell as characteristic of science. All of it supports his other observation, that despite the spectacular successes of science and technology, this has been "singularly without effect on the fundamental structure of world politics" (Lasswell, 1964: 9).

How far the currents in contemporary thought in the early decades of this century, as represented in Teilhard de Chardin's *The Phenomenon of Man*, and the many authorities to whom Lasswell made reference, were really touching upon this outcome of quantum probabilistic science is another matter. Lasswell made the most of it: Lord Lindemann's 1932 book was probably more substantial for him.

What is quite certain is that operant Q-factor structure, exemplified by Table 1, is achievable for each and every "subjective event of reference," and that this is indeed central to all the problems of man and his future.

The Problem of Problems

Note at once how we begin to solve insolvables with Q. Faced with problems of judgment (e.g., ethical problems), what can science do? Sir Geoffrey Vickers (1965), in his *The Art of Judgment: A Study of Policy-Making*, proposed that we change unsolvable problems into solvable ones. We test one of the latter, and come out (often enough) winners. Thus, the problems facing El Salvador are indeed complex, embracing almost every difficulty imaginable in culture, economics, religion, disease, ideology, and ignorance. The Reagan Administration chooses one of many problems in the domain of "democracy": if people can be got to the polls to vote, then a part-problem in the "democracy" domain has been solved. Ergo: with technical support from the USA, voting takes place, and the part-problem is happily solved to the Reagan Administration's satisfaction.

Sir Geoffrey believed that this is sound practice--what else can anyone do? Q methodology disagrees, and shows how to come to grips with the "problem of problems." The method was first applied to conditions attending President Kennedy's Alliance for Progress (Stephenson, 1967) when I was able to show that much in Latin America is antithetic to democratic forms of government. It was applied to the Iranian crisis of President Carter's administration (Stephenson, 1985b). An application to Dr. Freeman Dyson's (1981) *Weapons and Hope* is given in my "Methodology for Statements of Problems" (Stephenson, 1984), and I provide a brief note about this below.

Weapons and Hope

In the paper just cited, Freeman Dyson's *Weapons and Hope* is investigated as a "subjective event of referentiality" (in Lasswell's terms).

Dyson himself separates the facts of nuclear weaponry from the subjectivity (in Q's sense) of *hope*, in the course of an analysis of policy-making with regard to seven strategies for the nuclear armament crisis--Assured Destruction, Limited Nuclear War, Counterforce, Defense Unlimited, Unilateral Disarmament, Non-violent Resistance, and "Live and Let Live" (Dyson's own strategy). His book is full of subjective statements, all as unjustifiable as our English gentleman's verbiage about tea-matters, and all as "trivial," it might seem, as anything contemplated in Lasswell's duration metaphor. From several hundred such statements a Q sample was taken, and Dyson's "subjective event of referentiality" was represented by a series of Q sorts, which, factor analyzed, give the data in Table 2 (Stephenson, 1984).

Table 2. Freeman Dyson's Subjectivity

Conditions of Instruction	Factors α	β	γ
1. Stephenson's feelings before WWII		X	
2. Stephenson's feelings during WWII	-X		
3. Richardson's gen'lized foreign policy			
4. Freeman Dyson's feelings	X		
5. present USA position		X	X
6. present USSR position		X	
7. ideal of self & mutual expectation	X		
8. concept formation	X		

(X=significant loading, others insignificant)

It will be asked, why bring Stephenson into the Dyson "subjective event of referentiality"? I shall reply in a moment. Meanwhile, the study brings to

light three intrinsic decision structures, each colored richly with morality. Dyson provided only one.

Of the three in Table 2 one is indeed *hope*, in the form of "saving humanity," and it is common to both the USA and the USSR--it is factor β. Another is *benevolence*, factor α, the favorite thesis of Francis Hutcheson and the Scottish Enlightenment in the eighteenth century, still worth serious scholarly and research attention, to which I have attested elsewhere (Stephenson, 1977-1978). The third, factor γ, concerns *morality of power*, which has had almost unlimited attention by political scholars since the time of Hobbes down to Talcott Parsons--and it has got nowhere, especially with regard to conscience and morality, because the scholarship and research mixes the objectivism of a Popper with purely categorical (i.e., logical) concepts in the manner of Talcott Parsons (1937) and *The Structure of Social Action*. The Q factors, instead, are *objective*, intrinsic to the "subjective event with referentiality" to which Lasswell was calling attention.

Furthermore, they are the outcome of Newton's Fifth Rule (Stephenson, 1979). Newton, whose Four Rules of Reasoning provide the methodological foundations for modern objective science, had apparently suppressed a fifth rule, discovered in 1960 among his papers. The four support deductivism, the hypothesis-testing methodology of current objectivist science. The fifth, instead, serves inductivism, the discovery of new hypotheses, *ab initio*, *sui generis*, inherent in a situation. The fifth supports quantum theoretical methodologies.

Thus, there is strong reason to assert that Q factors are inherent decision structures for a given context. Research and scholarship, with respect to them, and intervention in societal and individual contexts, are given a green light. The concepts of "hope," "benevolence," and "power," in moral contexts, are inherent in the subjective framework of events and their referentiality in Dyson's dissertation.

The Common Coinage of Subjectivity

It will be asked, why should anyone take the above study seriously, consisting of Q sorts performed by Stephenson with statements of opinion collected from Freeman Dyson's book? The answer is that the concern is with the concourse of statements as such, and not about either Freeman Dyson and myself, or anyone else in particular. The statements are common coinage in our culture. Everyone can understand something about every statement--just as everyone in our culture understands something about the 40,000 or so quotations in Mencken's *Dictionary of Quotations*, all of which are subjective, all unjustifiable in Popperian scientific logic. Typical of Freeman Dyson's statements, for example, are the following:

> ...There is a chance that the world is at a historical turning point, away decisively against nuclear weapons.
>
> ...The concept of "live and let live" regards nuclear weapons as bargaining chips rather than as military assets.

It is to a collection of such statements that quantum theory applies: the collection constitututes a mass "subjective event of referentiality" for a given context, within which "conflicting possibilities" occur as quantum "jumps." Factors in Q are such quantum jumps: they depend inherently upon the collection (the concourse in Q methodological terms) and not upon the Q sorter as such, thus not upon either Dyson or myself in the example I have provided. "Hope," "benevolence," and "power" are as real as white tables when you know how to look.

Lasswell's Cosmic Map

I return to Lasswell's *duration*, and do so to return also to his judgment that the political science of his

day was fragmented, both intellectually and professionally.

That it is still fragmented intellectually, whatever it is professionally, seems obvious. I offer, as example, a *Forum*, published in *Political Psychology* (September, 1984), in which five authorities offer advice about "Bridging for Peace: Theory and Action for the 1980s."

There can be no doubt that the problem of nuclear war is of cosmic, not merely international scope, frightening to any rational person confronting the military and political evil of great nations (as indeed of Western culture down its two millenia). Five different bodies of advice are offered in the *Forum*. One authority indicates that the nuclear arms race is a malignant process, and that something must be done about the "helplessness" of the masses. Another calls for a return to a "Jeffersonian New Deal" effort. Another calls attention to 60-70 years of "anti-Soviet psychosis" in the USA, about which nothing is being done, neither by peace movements nor politicians. Still another, Willis Harman, makes *peace* as such his objective, and expresses shame that, in spite of a "lot of academic training" he now realizes that the "scientific world view" is not the only way to look at the world. He concludes, "There has been a neglect of serious exploration of human subjective experience." A fundamental change has to be made, therefore, in the "collective belief system of Western society."

There are five decision structures, all different, and there would be a hundred more, all different, if opportunity was afforded.

Can any rational person, in view of the cosmic problem, doubt Lasswell's judgment of 20 years ago, that political science is fragmented intellectually?

Is it not time, on the immediate and not cosmic scale, to recognize that Lasswell's *duration* and *time* was a serious proposition, worth everything we can give it? Nor, in my view, does it require the complex profession envisaged by Lasswell in his future for political science: at least not for a while. The beginnings of the modern atomic age began with a mere handful of scientists, with an Einstein, Planck,

Bohr, Heisenberg, Dirac and a few more. The beginnings for quantum subjective science could do with some such few.

I have to submit that Lasswell's cosmic concept of subjective energy, hurled into time with its own Big Bang, and doomed for an entropic end, is as worthy of full and serious acceptance as is the mass-energy Big Bang framework of physical science. One might begin with the reminder that perhaps Lasswell's entropic duration is nearing its end, in the destruction of human kind by the entrappment of physics in a selfless, conscience-less framework!

Q methodology, I must submit, is at least a considered acceptance of subjectivity as of concrete, substantive *duration*, grasped as common communicability, and that this marks a profound difference between science *without* self referentiality, and science *with* it, in Lasswell's terms.

Conclusion

Lasswell probably knew little about quantum theory or factor theory, but could reach important truths notwithstanding.

He would have taken heart, I believe, in remarks by Freeman Dyson, first that

> ...interconnections of past and future culture patterns are more durable than technology or political arrangements.

It is the observation made also by Lasswell, that science and technology have been singularly without effect on the fundamental structure of world politics. The hydrogen bomb is no longer the threat it was--it is replaced by star-war lasers or some-such. But America and Russia remain locked in opposing concepts of "self and mutual expectations"; anti-communist and anti-capitalist symbolizations are indeed "intensely conservative" entrappments. Lasswell's quantumized science would have crossed swords with these symbolizations, the myths of modern society.

The second remark:

> I have a suspicion that the operation of the brain may really have something to do with the peculiarities we find in quantum mechanics: the fact that electrons are unpredictable...it would seem quite likely that brains have evolved in order to take advantage of this elementary freedom. (Dyson, 1984)

This would have delighted Lasswell, and offers hope for those in Q who have to take the brain for granted, but who expect, with full confidence, that its mysteries will be subject more to quantum-theory neurophysiology, rather than to the present chip-circuitry.

Meanwhile, what Q methodology offers is pure quantum science, probabilistic, its concern being with the masses of the everyday common communicability people have about common things like white tables, all of it ostensible knowledge, and none of it involving the "consciousness" of philosophy and psychology, the "unconscious" of Freud, the behaviorism of Skinner, or any other of the many, in psychology, philosophy and social science, who have fashioned themselves on the *logic* of Popperian methodology, or upon the thousands of categorical constructs "entrapped" in what Lasswell called *duration*.

The most significant concept in Q, as in quantum mechanics, is what Lasswell called "conflicting possibilities," which, in quantum mechanics, is complementarity.

Q methodology has the self-same foundation, in the complementarity of its Q factors. In almost every Q study there are indications of the "conflict" to which Lasswell first addressed himself.

But Q is more: it is the basis for subjective science which conceives of subjective events as central to all problems of man and his future, and this includes conscience and belief.

References

Almond, G.A. & S. Verba (1963) *The civic culture: Political attitudes and democracy in five nations*. Princeton, NJ: Princeton University Press.

Brown, S.R. (1980) *Political subjectivity: Applications of Q methodology in political science*. New Haven, CT: Yale University Press.

Buchanan, W. & H. Cantril (1953) *How nations see each other*. Urbana: University of Illinois Press.

Burt, C.L. (1940) *The factors of the mind*. London: University of London Press.

Chardin, T. de (1959) *The phenomenon of man*. New York: Harpers.

Dyson, F. (1984) *Weapons and hope*. New York: Random House.

Forum (1984) Bridging for peace: Theory and action for the '80s. *Political Psychology, 5*, 465-504. (Articles by M. Brewster Smith, Diane Thomas, William Harman, David McFadden, and James MacGregor Burns)

Griggs, S.A. & D.W. Green (1983) How to make a good cup of tea: Exploring the scripts of thought-disordered and non-thought-disordered patients. *British Journal of Medical Psychology, 56*, 125-134.

Lasswell, H.D. (1935) *World politics and personal insecurity*. New York: McGraw-Hill.

Lasswell, H.D. (1964) *The future of political science*. New York: Atherton Press.

Lindemann, F.A. (1932) *The physical significance of the quantum theory*. Oxford: Oxford University Press.

McKeon, R. (Ed.) (1951) *Democracy in a world of tension*. Chicago: University of Chicago Press.

Meyerhoff, H. (Ed.) (1959) *The philosophy of history in our time*. New York: Harpers.

Parsons, T. (1937) *The structure of social action*. Glencoe, IL: Free Press.

Popper, K.R. (1959) *The logic of scientific discovery*. New York: Basic Books.

Stephenson, W. (1935) Technique of factor analysis. *Nature, 136,* 297.
Stephenson, W. (1953) *The study of behavior: Q-technique and its methodology.* Chicago: University of Chicago Press.
Stephenson, W. (1962a) "Ideal" types. *Psychological Record, 12,* 9-16.
Stephenson, W. (1962b) *Amelioration of political conflict.* Unpublished manuscript, University of Missouri.
Stephenson, W. (1964) Application of Q method to the measurement of public opinion. *Psychological Record, 14,* 265-273.
Stephenson, W. (1967) *The play theory of mass communication.* Chicago: University of Chicago Press.
Stephenson, W. (1977-1978) *Newton's fifth rule: Pro re scientia, pro re theologica.* Unpublished manuscript, University of Missouri.
Stephenson, W. (1979) Q-methodology and Newton's fifth rule. *American Psychologist, 34,* 354-357.
Stephenson, W. (1980) Consciring: A general theory for subjective communicability. In D. Nimmo (Ed.), *Communication yearbook 4* (pp. 7-36). New Brunswick, NJ: Transactions Books.
Stephenson, W. (1982) Q-methodology, interbehavioral psychology, and quantum theory. *Psychological Record, 32,* 235-248.
Stephenson, W. (1983) Quantum theory and Q-methodology: Fictionalistic and probabilistic theories conjoined. *Psychological Record, 33,* 213-230.
Stephenson, W. (1984) Methodology for statements of problems: Kantor and Spearman conjoined. *Psychological Record, 34,* 575-588.
Stephenson, W. (1985a) Perspectives in psychology: Integration in clinical psychology. *Psychological Record, 35,* 41-48.
Stephenson, W. (1985b) *Sir Geoffrey Vickers and the art of judgment.* Unpublished manuscript, University of Missouri.
Stephenson, W. (in press) Q-methodology: Interbehavioral and quantum theoretical connections in clinical psychology. In D.H. Ruben & D.J. Del-

prato (Eds.), *New ideas in therapy*. Westport, CT: Greenwood Press.
Tarasov, L.V. (1980) *Basic concepts of quantum mechanics*. Moscow: MIR Publications.
Thompson, G.C. (1966) The evaluation of public opinion. In B. Berelson & M. Janowitz (Eds.), *Reader in public opinion and communication* (2nd ed., pp. 7-12). New York: Free Press. (Work originally published 1886)
Vickers, G. (1965) *The art of judgment: A study of policy making*. London: Chapman and Hall.

One can study the nature of things by doing something to them, but one can really learn something about the essential nature of living beings only by doing something with them or for them. (Erik Erikson)