# West Churchman and Fred Emery

# On Various Approaches to the Study of Organizations[1]

Our assignment is to classify and compare the ways in which social scientists attempt to study human organizations. It is reasonable to ask why such classification and comparison should be made. In considering how to frame a reply we were convinced that papers prepared for discussion meetings are usually much too long because they attempt to include all the discussion the writers can conceive. We have adopted the policy of simply stating some theses and providing a few clues as to how we arrived at them. This policy (a) guarantees that we finish the paper although our thinking is unfinished, (b) maximizes the probability that it will be read and (c) minimizes the redundancy of the idiosyncratic steps in our reasoning.

Our first theses defend our right to discuss the topic covered by the title of the paper:

> T.1. *There are different approaches to the study of human organizations*.

> T.2. *Each approach has a positive value*.

> T.3. *Each approach is essentially incomplete relative to the ideal of a satisfactory study of human organizations*.

> T.4. *There is a reasonable possibility that the different approaches are complementary in the sense that some combination of two or*

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*more of them will prove better than any one of them alone*.

What we mean by "combination" is evidently not clear, even to us.  "Combining" is itself an organizational concept and hence we are faced here and throughout the paper with the need to use organization theory in order to discuss different approaches to the study of organizations.  Organizations can be combined by setting up new by-laws, new committees, new hierarchies, etc. None of these familiar meanings of combination is very helpful in explaining the concept of combining different kinds of research efforts.

     T.5.  *Two distinct research approaches are combined only if the differences between them produce in the two together a difference in the research behavior of the individuals and/or the whole organizations*.

We do not need to remind this audience that combination rarely occurs in academic circles, but in the *arena of applied social science* the environment often forces different research approaches to combine.

So much for our motivation.  What are the distinct approaches to the study of organizations?  The commonly adopted classification is given in terms of empirical sociology, mathematical social science and social philosophy.  Each of these approaches is usually defined in terms of the methodology that is used.  Thus empirical sociology uses interview schedules, statistical analysis and the like.  Mathematical social science uses mathematical models and searches for data to "realize" the models.  Social philosophy uses intuition and broad frameworks.

Instead of following the usual patterns of discussing social science, we adopt a more radical approach.  This approach is based on a thesis

about groups of people such as those who call themselves social scientists[2]

> T.6.    *There exists a framework of concepts of organizational structure and behavior such that the properties of any human group can be defined completely within the framework.*

This somewhat outrageous thesis says, in effect, that whatever we are as social scientists we are by virtue of our relations within and to some organizations; whatever we want to say about ourselves as social scientists we can say within the framework of the concepts we use to describe human organizations.  Of course, the thesis is rather weak because it says nothing specific about the framework, nor does it commit itself on the meaning of "definition."

From this thesis we arrive at

> T.7.    *The distinct approaches can be characterized in terms of organizational concepts by*
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> *(a)    the way the pursuants of these approaches are organizationally related to the organizations they study and*
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> *(b)    the way their preferred subject matter is embedded in an organizational context.*

The question that first concerns us is the relationship between the organization to which the researcher belongs and the organization which he is studying.  We note that only in the study of human organizations does this question become obviously important.

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[2]By social group we mean "any number of human beings who are in potential (or actual) communication," "potential" meaning some level of significant probability (Churchman and Ackoff, 1950:503).

We shall consider these different answers to this question and these constitute the classification of different approaches to the study of organizations. First, there is the approach which asserts that the research belongs to a completely independent organization:

> T.8. *One approach to the study of organizations is to regard the researcher as a member of an organization completely independent of the organization being observed.*

This thesis means that the researcher accepts norms of behavior, his role and his goals, from an entirely different organization from the ones he observes. Insofar as he studies their goals and conflicts he is indifferent to how far they achieve their goals or resolve their conflicts. We generally call the researcher a member of the research community. This community is not well understood in organizational terms as yet. It evidently places a high value on honesty, objectivity and something vaguely called intellectual interest. Its members thrive on channels of communication and a member's value to the organization depends on how strong a link he is in the communication network. The communication nets of the research community tend at times to separate so that only very weak flows exist between the separate parts. The separation is accomplished by giving certain sub-goals a greater value. Thus empirical sociology emphasizes the importance of good bits of input from the organization being studied and mathematical social science emphasizes the importance of excellent communication between researchers in which finer and more elegant questions and replies can be given, while social philosophy emphasizes the importance of a "total input" from the observed organization. Their analogies in business organizations are the marketing man, the systems man and the policy makers. Of course, the meaning of the independent approach depends on how one defines independence. For our purposes

> T.9. *One organization A is independent of another B if B's behavior*

*does not influence the goals (or standards) or A.*

It will be noted that *A* may, by its observational activity, introduce irreversible changes in the goal structure of *B*; the independence only goes one way.

We said at the outset that each approach to the study of organizations is incomplete.  What's incomplete about this one?

> T.10.  *The "independent" approach is incomplete because the independent research community has no adequate way of judging whether its focus of interest or its output are of any real concern or value to any other organization.*

This is certainly a debatable thesis, as we hope all the other theses are.  Of course, the independent research community could observe the problems with which an organization appears to be concerned; but the point is that the organizational problem may well manifest itself in misidentification of their problems.  Similarly, the independent research community could observe how an outside organization responds to its output of research reports; but this response never makes any significant difference in the plans and policies of the research organization.  Furthermore, although there are some interesting attempts to combine empirical sociology and mathematical social science within the independent approach, it could not itself be studied by this approach for then the research would be part of the organization being studied.  Perhaps this is a dilemma that the leaders of university development might consider?

> T.11  *A second approach to the study of organizations is to regard the researcher as both a member of an independent research community and a member pro tem of another organization that includes the one being observed.*

This approach is common to a great deal of applied social science in industry and commerce and industrial or government operations research. Here the researcher tries to "optimize" or "suboptimize" and uses as his criterion the value structure--or at least the stated objectives--of the controlling interests of that organization.

> The traditional formulation of operations research (O.R.) problems [is] in terms of ends and means--how can I maximize the achievement of an objective or a set of objectives for a given cost? Or, alternatively, how can I minimize the cost of achieving a certain set of objectives? (Enthoven, 1963)

The O.R. man typically regards costs as "opportunity costs," the value to the controlling interests of the alternative means that have to be sacrificed. The applied social scientists will typically also go to the sub levels, and especially the individual, to establish ethical constraints on his pro tem participation in the organization under study.

The incompleteness of the dual approach is obvious and is not essentially affected by the difference just noted between O.R. practice and applied social science.

T.12.   *The dual organization approach is incomplete because the researcher has no adequate basis for resolving conflicts of interest and values within the organization under study or between it and the research community* .

At best the researcher can look for activities where the conflict is minimized, e.g., areas of a technical administrative character. The applied social scientist can hardly avoid the problems of "administration of men"--hence his concern to restrict his involvement by assuming ethical constraints of a very general nature. Thus does the researcher find himself

edged away from problems of great intrinsic interest to his science and of central importance to the organizations he studies.

Not only this but he must always worry about where to spend his time. He knows that the process of implementation of recommendations is long and tedious; should he drop the matter at the point where the research community nods approval or carry on until the observed organization accepts and understands? Also, he wants to carry back a message to the research community; he wants to say that its standards of acceptance are defective because its ideas don't work out in practice. He is getting ready to do "research on research," but he doesn't see clearly how this is possible.

There is another approach, of course. It is the most difficult to enunciate because it is less frequently pursued and requires for its definition a conceptual framework somewhat more advanced than we have.

> T.13. *A third approach to the study of organizations is to regard the researcher as a member pro tem of a third organization sufficiently greater than the organization under study to encompass the conflicting interests and yet sufficiently close to it to permit its values to be related to the concrete issues of conflict.*

Ideally, this third organization would be sufficiently broad to encompass also the interests and values of the research community. However, this implies such a general level of human organization--almost certainly supra-national-- that it is difficult to understand how one would work back to agreed upon objectives in concrete conflict situations. It might be that there are not enough in-between levels at which sufficient communality of interests and values exists to justify search for agreed research objectives and criteria. This seems unlikely. Societies as admittedly conflictual as ours could hardly hang together unless there were very pervasive strands of common interest. Our own experience is that communality can usually be found at the next higher

level of social organization.  The practical difficulty is more likely to be that the researcher pursuing this third approach will have to engage in institution-building so that agreement about his research concerns can be actively pursued and powerfully sanctioned.  It should be noted that when in this approach the researcher obtains his value standards from the next higher level he does not have a privileged objective standing as a member of this level.  He can claim neither special knowledge of the value structure of this level nor special power to sanction things on its behalf.

These differences in approach may help somewhat with understanding the differences between "academic studies," the typical applications of social science and O.R. to part-systems and the emerging promise of these latter at the level of overall system policy.[3]

There is no obvious way in which one could combine these approaches to yield other and better approaches.  At best one may recognize that circumstances make a weaker approach unavoidable or a circumscribed interest may make it justifiable.  As between applied social science and O.R. we can simply note that

T.14.    *Applied social science and O.R. have a common interest in the*
         *second and third approaches (T.11., T.13.).*

If there is a complementary relation (T.4.) this must be sought in the way their preferred subject matters are embodied in an organizational context (T.7.).

We approach this question with another thesis about individuals and organizations:

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[3]There seems little need to follow Enthoven in his use of the term "systems analysis" to describe this broader application of O.R.  Whatever restrictions may have been imposed on the practice of O.R. since its war-time hey-day there appears to be nothing intrinsic in O.R. that confines it to part-systems.

T.15. *The properties of some groups might be defined in terms of a single organization but an individual can be so defined only in terms of more than one organization.*

This is putting it mildly. If any individual could be described in terms of one organization we would have "organization man," pure and simple. We do not think that he would be even humanoid. The individuals who carry the work of an organization are related as individuals and as groups to a multitude of other organizations (Selznick, 1948). They cannot be defined as persons without reference to these varied interpenetrating relations. For an organization this means more than a well-thumbed personnel file on each of its members.

T.16. *Any organization in tying together individuals, whose properties are partly determined by their relations to a multiplicity of different organizations, creates for itself a statistical aggregate that has properties of its own--an internal environment with field properties.*

It is not as if we have all been blind to this. We have tapped away its cruder manifestations in turnover and absentee problems. We have gone into the more complex manifestations in morale and informal group structures. We have been perplexed and fascinated by the Bionesque phenomena of the group relations laboratories.

However, we have consistently tried to refer these phenomena to either the organization or the individual. There has been a marked reluctance to recognize that which is obvious to anyone who has had to directly command a body of men. An aggregate of stones has such extremely weak field properties that we can usually ignore them. An aggregate of human beings readily constitutes a powerful contagious social field, more or less inclined to shared emotions and behavior of hostility, docility, loyalty, flight, etc.

(Marshall, 1947).

What is perhaps less well recognized is that

T.17    *The dual characteristic of human organizations, as structured*
        *role-sets and as statistical aggregates of persons, demands of*
        *organizational research the joint consideration of two research*
        *strategies, not just the employment of two methodologies.*

Historically social science has evolved about the traditional scientific strategy of identifying particular cause-effect relations of a high degree of probability.  That scientific truths can be discovered in the penumbra of complex relative indeterminancies is a very recent insight embodied in the mathematical theories of probability and error.  To this insight O.R. owes the possibility of its existence.

The differences between social science and O.R. are no more a difference simply of methodology than is the difference between Cartesian geometry and probability theory.  Appropriate methodological biases have certainly emerged but the crux of the difference is a strategic one of the direction from which one may hope to approach the common scientific goal of understanding.  This difference has involved the usual array of unexpressed assumptions and O.R., despite its attempts to formulate its opposing assumptions as multi-variate, etc., has shown itself particularly susceptible to hidden assumptions that are more closely related to the traditional mechanical but quantitative models than to its own parentage.  The strategic difference has involved also the formulation of the basic questions that tend to mold the character of any discipline, the concepts that give to these questions the shape of an answer and, only within this, a process that selects methodological procedures which, however, once adopted, themselves modify assumptions, questions and concepts.  This is perhaps simply to restate T.17. as meaning that it is not enough for the understanding of organizations that the social scientists use methods appropriate to statistical aggregates or

that they open up the black box with structural keys.  It seems necessary to consider organizations from both of these perspectives.  One must seriously challenge any quick assumption that a particular organizational problem belongs to one perspective.

Such a caveat would be pious indeed if the duality of organizations affected only minor aspects of their behavior.  We do not think this is the case for reasons that are best indicated by the interim conclusions we reach:

T.18.    *An adaptive behavioral system must be pre-set to exclude, magnify or attenuate informational inputs if it is to remain adaptive.*

Assuming that an organizational structure is such a system (without specifying how adaptive) we assert that:

T.19.    *The state of the aggregate of individual persons (the internal environment) is a primary factor in pre-setting the communication that is possible within the organization (Powers et al., 1963).*

T.20.    *Organizations seek to relate this state of the aggregate to their organizational requirements by the development of so-called organizational values.*

T.21.    *The embodiment of organizational values is thus a constant preoccupation permeating not only such personnel tasks as selection, training and promotion but also the exercise of authority, operating doctrine and marketing policies.*

T.22.    *Like other values, organizational values emerge to cope with relevant uncertainties and gain their authority from their reference to the requirements of larger systems within which*

*people's interests are largely concordant (Selznick, 1957).*

These last theses are no better founded and no more compelling than our earlier ones.  Nevertheless, they do suggest that the duality of organizations enters into the central regions of their behavior.

The problem of organizational values emerges as critical for both O.R. and applied social science.  From whichever perspective one approaches the study of an organization one will be questioned about these values. Furthermore, if we return to our earlier problem of how the researcher relates to the organization under study, we find that in seeking to identify "the next higher level" he is engaging in the search that the organization must undertake in finding its appropriate values.

It is interesting to speculate that the fate of research projects within the organization may have more to do with the majority of the organization's values than with the value of the findings.

# Addendum by Fred Emery, 1992.

The point being made here (from T.17. onwards) to an audience dominated by operational researchers was that it was a mistake to model an aggregate of employees or servicemen as if they were just a statistical aggregate.  Employees, particularly those at the workface, are typically recruited and contracted as just "day labor."  That legal fiction does not make them equivalent to just so many bins of nuts, bolts or cogs for assembling a metal mechanism.  Just because most large organizations are based on the principle of treating people as replaceable parts does not disguise the fact that they all also have very noticeable problems with "collective behaviors" that are contagious, unpredictable and disruptive.  Even employees who are normally sensible, loyal and hard-working get caught up in these

swings in groups moods and sentiments.

In World War I and World War II we had seen the grossest demonstration of the shortcomings of organizations designed on the spare-parts philosophy.  Morale became a central problem for conscripted servicemen and industrial workers and for war-stressed civil populations.  In World War I this led to Trotter's (1919) book, *Instinct of the Herd in Peace and War* and in World War II to Bion's (1952, 1961) theory of basic group emotions.  These contributions were unfairly neglected by mainstream social science because they seemed to be positing some sort of group mind.  They could be read this way as both Trotter and Bion were searching for explanations with the conceptual tools then available to them.  These were person-centered concepts (Sutherland, 1990, Vol.I:119-40).

As Chein (1943) so insightfully pointed out, these conceptual tools were yielding us only static descriptions of various states of morale and group emotions because

> the "dynamic" is largely a dynamic of the environment or, at the most, a dynamic of the individual subjected to the environment rather than a dynamic of the individual who exercises control over the environment.  (p.322)

We see selective behavior in these situations but it is not the selective behavior that we normally associate with purposeful human behavior.

> This selective behavior, however, is not one which the individual controls; it is determined by the momentary states of the individual and the momentary environmental circumstances; it is wholly an impersonal affair.  (p.322)

Read carefully, it seems that Trotter and Bion were both trying to avoid any concept of a group mind (purposefully directing its constituent

parts) and were trying to postulate no more than an environmental field brought into being by co-existing individual minds attuned to each other. What they were trying to postulate was no more than a Darwinian embellishment of Aristotle's dictum that man was by nature a political animal.  Trotter and Bion emphasized the fact that human beings have evolved as group beings with special sensitivity to fellow humans; to their mere presence, actual or potential, and to the signals they emit, whether iconic, indexical or symbolic.  When organizations reduce them to a mere collectivity by treating them as spare parts they will increasingly tend to respond collectively.  That is, they respond not as individually purposeful systems but as mere goal-seeking systems with common goals (Ackoff and Emery, 1972:215-16).  A common threat arouses them to fight or to flight or vacillation between those states. To a common fate of impotence they respond by withdrawing into themselves-- Bion's (1952, 1961) group emotion of dependency.  The lifting of a common threat or common repressive order will tend to elicit the group emotion of pairing--the pre-setting à la T.19.--for creative thinking.  Inappropriately elicited, this group emotion is a pre-setting for millenarian and utopian phantasies.  What is striking is that human beings have a tendency to react to many signals from other humans as if they themselves were directly confronting the situation being signified.  For example, a danger signal can automatically pre-set them for fight or flight.

In the light of neo-Darwinian theory this was a very suspect hypothesis.  There seemed to be no way that such sensitivity could have contributed survival value to "the selfish gene."  However, Wynne-Edwards (1962, 1986) has evidenced this intra-species sensitivity for most levels of eusocial species and shown how it has evolved through group selection.  Labov and Fanshel (1977) have shown in detail how it pervades the many levels of human discourse.  Since Churchman and I prepared this address there seems even less reason to ignore this third dimension of human behavior.

# References

Ackoff, R.L. and F.E.Emery. 1972. *On Purposeful Systems*.
      Chicago: Aldine-Atherton.

Bion, W.R. 1952. "Group Dynamics: A Re-view." *International
      Journal of Psychoanalysis,* 33:235-47.

-----. 1961. *Experiences in Groups, and Other Papers.* London:
      Tavistock Publications.

Chein, I. 1943. "The Meaning of 'Morale' in Relation to Morale
      Building and Morale Research." *Psychological Review*, 50:311-29.

Enthoven, A.C. 1963. "Systems Analysis and Decision-Making."
      *Military Review*, 43:7-18.

Labov, W. and D. Fanshel. 1977. *Therapeutic Discourse*. New
      York: Academic Press.

Marshall, S.L.A. 1947. *Men Against Fire.* New York: Morrow.

Powers, W.T. et al. 1963. "General Feedback Theory of Human    Behaviour,
Parts 1 and 2. *Perceptual and Motor Skills    Monograph Supplements.*

Selznick, P. 1948. "Foundation of the Theory of Organizations."
      *American Sociological Review,* 13:2-35.

-----. 1957. *Leadership in Administration*. Evanston, IL.: Row  Peterson.

Trotter, W. 1919. *Instincts of the Herd in Peace and War*.
      London: Fisher Unwin.

Wynne-Edwards, V.C. 1962. *Animal Dispersion*. Edinburgh: Oliver
      and Boyd.

-----. 1986. *Evolution through Group Selection*. Oxford: Blackwell.