The systems approach and its enemies (Churchman, 1979): abstracts

Below are the book abstract and individual chapter abstracts of C. West Churchman's 'The systems approach and its enemies'. They were produced for https://csl4d.wordpress.com/, which is the blog of an informal, private initiative for exploring the combined use of concept mapping and systems thinking for learning in business, development, and education. Churchman's work is the focal point of CSL4D. CSL4D stands for Concept and Systems Learning for Design (or Development). A summary of the book can be found at [CSL4D](https://csl4d.wordpress.com/).

Preface   The subject of C. West Churchman's "The systems approach and its enemies" is the general design of social systems. Generality in the context of social systems is a highly debatable concept, because social systems are never wholly rational nor wholly irrational. The same applies to other popular dichotomies such as objective-subjective, hierarchical-nonhierarchical, teleological-ateleological, deductive-nondeductive reasoning (for example, inductive or dialectical), ineffable-effable, accurate-inaccurate. Social systems are beyond that. The term 'enemies' refers to that part of social systems that is not easily modelled by "hard" systems analysts, but that is nevertheless real and relevant. *(Preface of Churchman, C. West 1979 The systems approach and its enemies)*

On systems and their design   Many human "systems" function poorly. The question is: what can be done about it? The proper design of systems is not a simple matter of fixing up some mess ('x'). Invariably, such simplistic approaches, including their opposites of not-stopping x or not-doing x, fall victim to the environmental fallacy. In the broader perspective of the systems approach no problem can be solved simply on its own basis. The systems approach is designed to avoid the environmental fallacy. Many practitioners use specific forms of the systems approach. On the broadest level, the systems approach belongs to a whole class of approaches to managing and planning our human affairs with the intent that we as a living species conduct ourselves properly in this world. The full understanding of the systems approach requires looking into its: (1) history; (2) logical structure; (3) ethics; (4) potential; (5) enemies; and (6) future. In his life, Churchman (1913-2004) tried various approaches. Logic failed in its handling of inconsistency, statistics in its identification of the right question to study (type III error). During WWII he got involved in military Operations Research (OR) and industrial OR thereafter. Later he studied the application of utilitarianism and various modifications of cost-benefit analysis in government. Finally, he provisionally identified four "enemies" of the systems approach (politics, morality, religion, and aesthetics) to enable the rational mind to step outside itself. *(Ch. 1 of C. West Churchman 1979 The systems approach and its enemies)*

The tradition   We tend to regard every current crisis as a novel one, ignoring its historical roots and the lessons that could be learned. Future and past generations are what make us human, participants in the human project. In this light the history of ethics is of great interest, especially for its display of hopes, expectations, and interests. It can inform the systems approach and vice versa. The systems approach is a learning approach for rationally governing ourselves using a comprehensive, unified view of human destiny as coherent and ethically good and to allows us to judge our decisions as either good or bad. The systems approacher sees all realities as one (monism) and each age as doing its best to put the total story together. Even primitive humans must have had an idea of the "whole system", its components (food, shelter, defence, water), its boundaries, and their decision making relative to it. The ethics of the "I Ching" is discussed, followed by the Bhagavad-Gita, the pre-Socratics (Anaxagoras in particular, with his "in everything there is

everything"), Plato (the Republic), Aristotle (teleology), the Stoics, the European tradition from Paul to Leibnitz, Kant, and finally the avoidance of ethics in current management theory, statistical quality control (the "sacred" .05 rejection level), and operations research (mathematical programming). They all concern the true meaning of reality and its fundamental evasiveness. *(Ch. 2 of C. West Churchman 1979 The systems approach and its enemies)*

General logic   This chapter sketches a broad perspective of the logic of the systems approach. In Kant's view, logic can "justify" what we take to be true or false. By recognizing that we never know what is "best" we can see the need for more reflection. "Logic" is required to be "consistent" and "comprehensive", but this can be "explained" in different ways. Consistency is best understood as fitting in a spiral lattice network of explanations. Science explains nature in ever richer networks of explanation or fact nets. It is comprehensive since it assumes that all aspects of the fact net of reality can eventually be identified. The controlled conditions of a classical laboratory do not apply in social planning. In many experiments involving humans, the subjects do not behave naturally The experimental results therefore hardly apply in real circumstances and point to the need for another method of inquiry for planning. Such a new method will still collect data, but only those that appear relevant. The notion of objectivity is saved by giving human bias centre stage. It takes the form of a spatiotemporal schema of reality that can be expanded. It includes intended and unintended consequences or outcomes. The decision maker and planner play different roles. The planner may look at goals, objectives or ideals. In the latter case the inquiring systems becomes a systems approach. It also needs a "semi-closed system", in which all matters of human concern can be tied together using dialectics. *(Ch. 3 of C. West Churchman 1979 The systems approach and its enemies)*

Kant for planners   In the systems approach the reality of the planner is based on a set of categories (of purposeful experience) in the image of the a priori categories of human understanding in Kant's Critique of Pure Reason (1781). Other similarities are of Kant's individual consciousness of the singular ego with the plural ego of the planner that unites the collective consciousness. Sets of universal principles or postulates that are not validated by observation apply to both categorical schemes. A final parallel is the limitation of reason, in the discussion of which Kant introduces the "dialectical" method, and where Churchman distinguishes between planners who use the concept of the feasible to limit the scope of reality of planning ("objective planners") and those who do not ("ideal planners"). Like Kant's, Churchman's categorical scheme is organized in four groups of three. They are based on the idea the people are the centre of the planner's reality: clients (with purposes unified under a measure of performance), decision makers (with resources under their control in a relevant environment), planners (with their concerns for implementation and ultimate success), and the class of systems philosophers (with their enemies to dispute the significance of a rational approach). Some philosophical problems with pronouns are discussed. Eight postulates link the first 9 categories of Churchman's scheme. Conceptual differences in the boundary between objective and ideal planning form a dialectic. *(Ch. 4 of C. West Churchman 1979 The systems approach and its enemies)*

> **Client:** This is the category of whom should be served. It includes those who are harmed.
> **Purpose:** In unfolding this category it's often helpful to think in terms of three subcategories: goals, objectives, and ideals. Ideally, all purposes should contribute to improvement in the human condition.
> **Measure of performance:** it can be viewed under the three subcategories of purpose.
> **Decision maker:** this too can be viewed under the three subcategories of purpose, especially from the planner's viewpoint.
> **Components and environment:** these are correlatives, e.g. as the environmental boundaries

in the constraint equations of mathematical optimization or as results coproducing elements not in the control of the decision maker.

Planner: plays a critical role in unfolding the other categories. Almost all decision makers are also planning and are also clients. To plan means to employ the human intellect in an attempt to secure improvement in the human condition. It is natural for all humans to plan (cf. US Declaration of Independence).

Implementation: Churchman calls this the tragedy and comedy of planning. Implementation means the transformation into action of an intellectually conceived but partially incorrect plan. Often the purpose of the plan is misunderstood, e.g. if it is for the glorification of the managers or bureaucrats.

Guarantor: is what ensures human progress. In the past God played this role. It is necessary if the ideal planner is to make any sense – namely, if the destiny of all conscientious human planning is to be realized. Hence the joke by Wroe Alderson: Guarantor Of Destiny. GOD. Since it is unlikely or impossible that the destiny of planning will be achieved, it is also unlikely that we can find a perfect guarantor. What we can do is to look for instance for a guarantor of the survival of certain organizations or institutions or "systems."

The categories unfold by asking the basic ethical question: who is and who should be the client? What is and what should be the purpose?

Dialectics   Churchman reviews Kant's antinomies to contrast the two main forms of planning: (1) objective planning, which sets system boundaries in both time and space, and in the scope of the problem; (2) ideal planning, which looks at recommendations and implementation as opportunities for learning, admitting the need for ever broader systems in an endless quest for ever more comprehensive systems design. The first analyses systems into basic entities, whereas the second looks at systems as an endless chain of subsystems. Social systems are comprised of individuals, each of which reflecting a world, which is a system, so the search for understanding is endless. In the next antinomy the objective planner 'commonsensically' serves a "contractor", whereas the ideal planner 'arrogantly' serves humanity, which may cause conflicts to occur with the contractor. This was in fact the case in Churchman's work for NASA. In the fourth antinomy, the objective planner claims that the conditions for a betterment of the human condition can be known, whereas the ideal one doubts it very much. The antinomies point to fundamental limitations of human rationality. Like Kant, Churchman opts for a dialectical process with a "none of the above" synthesis. Similar to Hegel's historical process, Churchman's unfolding process becomes central and is driven by contradiction. But this cannot be done without conceptualizing and questioning the world view of the decision maker, including her realities and values. *(Ch. 5 of C. West Churchman 1979 The systems approach and its enemies)*

Ethics   Systems analysts tend to ignore ethics, whereas systems approachers consider it to be a dialectical process in which all humanity, past, present and future, must take part. To be in some way effective, the ethical discussions must include action as one of its components. Two debates are highlighted. The first is between Kant and Bentham in the 18th century. Bentham proposes the principle of utility to guide government legislation. This leaves open questions about the operationalization of the principle, the meaning of pleasure and pain, and the paradoxes of hedonism. Hume had defined utility earlier in a way that allowed its measure to be expressed as a combination of money and probability with either the conscious ego or the potential behaviour as its value center, provided the person hasn't lost touch with the inner self. Kant objects with his maxims that follow from the categorical goodness of Good Will, which no one must be denied the exercise of: everyone has a universally legislative will and therefore we should never treat humanity as a

means only. In Kant's moral ideal, the client, the decision maker, and the planner are one and the other categories are replaced by new ones, such as repentance and forgiveness. In this ideal, where morality and happiness are in accord, can only be gradually approximated in an endless pursuit, which requires God a guarantor. A more modern guarantor was identified using 20th century thinkers Singer and Jung. *(Ch. 6 of C. West Churchman 1979 The systems approach and its enemies)*

Retrospect and prospect In the eyes of the systems approacher people are committing the environmental fallacy everywhere. This is dangerous as it first builds crisis and then attacks crisis. Politics and morality are too narrow in scope. Also, the call for clarity, reliable data, and standards of excellence diverts from the relevant. To avoid the pitfalls of narrow planning, we looked at the difference between systems planning and the classical laboratory. We concluded that objectivity is a characteristic of the design of the inquiring system as a whole: is it open to all relevant aspects? A dialectic approach seems warranted to bring different observers closer together, another is to focus on divergences and their relevance or lack thereof. The orderly procedure of Kant's critique to provides a guide for describing the logic of the systems approach as the design of an inquiring system that is most capable of unfolding the relevant issues concerning the human condition. The idea of "data" is replaced by the "given", which is any experience that contributes to our ability to learn how to improve the human condition. An important question is how we should relate to our enemies (of politics, morality, religion, and aesthetics): should we fight, avoid, appease, surrender, convert, love, or be them? As to the disconcerting idea of "being the enemy", the fact that the systems approacher's vision will never become "reality" can be transformed by admitting that it is a necessary feature of reality. *(Ch. 7 of C. West Churchman 1979 The systems approach and its enemies)*

Enemies of the systems approach

Politics The systems approach rationally promotes its "whole system" version of the truth, but "enemies" (politics, morality, religion, aesthetics) may perceive this as circular or superfluous reasoning. By admitting this, the systems approacher may understand something deeper about himself. Meanwhile, the enemies unfold into each other. For instance, if "politics" says it is OK that those in power should rule, this is shocking to "morality". Now, Churchman uses the term "making polis" to describe the "political approach" as a process in which the polis (or nation, disciplinary science, group, community, segment of society, family) tries to do something about a specific issue. Members are often so "ideologically" involved that they become blind to certain facts and reasons. This happened in the case of Churchman's development of operations research, which was narrowed down to model building in less than a decade. This forced him to latch onto "system", which later tended to become identified with the more disciplinarian "systems analysis." The political approach is often much removed from the systems approach, going from problem to problem, implementation being paramount, only forming polis in order to change mostly specific issues. However, polis is real and part of the whole system. A dialectical synthesis between politics and the systems approach is unlikely, because politics tends to form a counterpolis to eschew the results of systems thinking and thwart systems planning. *(Ch. 8 of C. West Churchman 1979 The systems approach and its enemies)*

Morality Deep in the human spirit is a moral force that cannot be expressed in ethical theories. It can be negative (revolutions, civil disobedience) or positive (joy). Morality drives the progressive systems approacher. Morality is sometimes conceived as a pervasive psychic force, the human eruptions of which are formalized by moral theorists. Morality-inspired idealism is often cold, while the systems approach is antimoral in its imperatives. The combination of morality and politics can be disastrous. A systems approacher cannot accept war. The equity sought by the morality-inspired

systems approacher may not be approved of by politics, especially if polis is clearly built on race, sex, wealth, prestige, or poverty. Evil is always present in two forms: as an opposing force and as a negative consequence. The systems approach tries to limit its occurrence by education, morality will fight back by incarceration, politics will fight those who threaten polis, religion has fought many senseless wars, and aesthetics fights the tragedy created by those who destroy the quality of life. To the goal planner, the ideal planner oversteps proper limits. But by recognizing our enemies and becoming political we may sacrifice our ideals. Aesthetics may have an excessive concern for wilderness areas. Humans are "approachers", and as such cannot help but destroy the essence of their own approach. To counter this tragedy, humans have created comedy. Humans are perhaps the most ridiculous species. *(Ch. 9 of C. West Churchman 1979 The systems approach and its enemies)*

Religion   The superior being can be many things. It can order us to act, or to conform to its intentions, or to worship. This chapter only considers 4 forms: a personalized deity, "Nature," community, or everything-nothing. Appropriately, the chapter replaces "evaluation" with "worship" and "cost" with "awesome fear." Religion establishes a worshiper-worshiped relationship in which the decision center is moved away from the human. This book is written in a religious mode, worshipping the Divine as "The Whole System." The religious underlies many of our social policies. In the West "The Economy" is our deity of preference, with unemployment as its sacrifice, economists as its priests and data banks as its churches. Planners warn each other about "hidden assumptions", mirroring God's mysterious ways. It is often assumed that art works through the aesthetic, but it may be better to say that art is usually religious. When art is lacking in religious worship, the religious act turns dull. This applies especially to The Economy. The personal god-parent is one of the most attractive images of religion. Science has destroyed much of the old imagery, becoming a god in itself with its hard truths and dangerous weapons. Some people worship life and protect insignificant, ugly species. Sometimes these efforts become absurd. Morality and religion merge when we worship Future Generations by protecting certain wildlife. *(Ch. 10 of C. West Churchman 1979 The systems approach and its enemies)*

Aesthetics   In much of philosophy (Plato, Kant) the Good and the True are considered, sometimes in relationship to each other, but the Beautiful is absent. The systems point of view shows that we should not search for the meaning of the aesthetic in the arts alone, because often in art the connection with the Good and the True is obscured. Aesthetic is what is experienced as peaceful, attractive, exciting, luring on the beautiful side, and threatening, repulsive, boring, anxious, frightening on the ugly side. All experience has an aesthetic quality. Experience without quality is dead. The systems approach seeks to clarify the experience, but the aesthetic approach objects, because the experience has a unique, noncognitive quality: a theory of aesthetics is self-contradictory and to be condemned. Churchman proceeds by applying Paul's "faith, hope, and love" to the systems approach, where faith is the process in which there is a gradual realization of the necessity of the guarantor and hope is the radiant belief that it will all add up. Love, now, is a radiance of the myriad ways in which humans can love each other. Intuition is what reveals aesthetic quality. It works by "surprise." *(Ch. 11 of C. West Churchman 1979 The systems approach and its enemies)*

Significance

The Negative   Politics is initially a non-friend to the planner, but because of the need for implementation it must be turned into a friend, who makes "polis" to address a crisis. As the planner uses political variables for his model, the politics turns into the "opposite of friend." Attempts to adopt a more holistic approach to a problem destroys the polis along with the hope of

implementation and the planner's vision. Morality calls the attention to the need for fairness and equity in addition to cost-benefit criteria. But the latter put morality off and it transforms into an opposite of friend as rationality only uses an insufficiently significant part of morality. According to religion, planners are not the main designers of change in the world. Worse, by the system approacher's urge to improve the human condition he appears to worship reason, while reason is elusive. Finally, plans often tend to destroy the quality of experience required by the aesthetic, which, being unique, is not something that a systems approach can handle. Gone is trade-off. From all this we begin to see that the fate of the planner is that of a modern Candide. Whenever he sees the problems of the world, usually brought about by the enemies, he says, "But over all there is progress." Reason, through reflection, pushes itself beyond comprehension. *(Ch. 12 of C. West Churchman 1979 The systems approach and its enemies)*

The Positive   In order to deal with the paradox of the previous chapter, Churchman suggests to "be one's own enemy" so that one can observe the rational spirit and begin to realize what has been left out, especially its quality of being human. An interesting topic is that of the life and death of organizations. The enemy that best describes these changes is the aesthetic, who can talk about an organization's radiance and its gradual diminution. Many people play roles that have to do with information, each with his own angle to the life cycle of the organization: "informant" (political information), "instigator" (polis builder) or "counterinstigator", "embarrassor" (politics, morality, religion) , "jester" (aesthetics), "nice guy" or "listener" (aesthetics). Another question is whether an organization can or should be able to commit suicide. In utilitarian terms the key question is: "Are the long-range social benefits, minus costs, such that the organization's existence is 'better' than its nonexistence?" From a systemic viewpoint, the trouble is that we lack a suitable "measure of performance" to be able to answer it. A Kantian approach should consider the ethical issue of equity, but it is virtually impossible to compare the benefits of diverse organizational activities. And then there is the question of spirit and enthusiasm, since the moral is to be at the same time in the reality and the vision. *(Ch. 13 of C. West Churchman 1979 The systems approach and its enemies)*

Book abstract   The design of social systems (organizations, businesses, projects, governments, nations, the world) in the most general sense is described and guidelines for system design are provided. It is argued that social system design is beyond dichotomies such as rational-irrational, teleological-ateleological and objective-subjective. Churchman proposes the dialectical systems approach as a rational solution for the so-called "environmental" fallacy, but admits that irrational "enemies" or non-friendly viewpoints are necessary to come to a fuller understanding of the systems approach. The historical roots of the systems approach in Western and Eastern thought traditions are explored, the limitations of classical logic are outlined, and the need for an alternative "whole system" form of logic and objectivity is discussed, in which people are the center of the planning reality. The first nine categories of Churchman's framework are described, followed by a detailed discussion of the problems of a systems approach defined from within as contrasted with the outside perspectives of the "enemies" such as politics, morality, religion and aesthetics. Suggestions for unfolding the different categories into each other are included. *(C. West Churchman 1979 The systems approach and its enemies)*