The Scene for Interpretive Systemology

Ramsés Fuenmayor[1] and Hernán López-Garay[1]

In this introductory paper to the special issue of *Systems Practice* devoted to Interpretive Systemology, some of the conditions under which this trend in systems thinking has come to life are briefly depicted. For that purpose a "wider" and a "narrower" scene are presented. The "wider scene" presents the general questions and problems that are to be tackled by Interpretive Systemology, within a wide international perspective of systems thinking and practice. The narrower scene, which is related to more particular conditions, shows how some circumstances connected to the so-called "Third World" or "underdeveloped" countries have helped to trigger the launching of Interpretive Systemology. Finally, a brief outline of the research program for Interpretive Systemology is introduced.

KEY WORDS: interpretive systemology; soft systems thinking; critical systems thinking; organizational studies.

1. THE WIDER SCENE FOR INTERPRETIVE SYSTEMOLOGY

In 1919 Maurice Ravel composed a musical piece called "*La Valse.*" This composition starts with the presentation of various themes which slowly give way to a central theme, namely, a cheerful waltz. Although one would expect this waltz finally to dominate and the other themes to disappear, it is continually interrupted here and there by some atonal counterthemes. After some time, the waltz lies in pieces, like the pieces of the violin in Picasso's "Violin," surrounded by the countertheme's background sound. The melodic waltz is gradually altered until its almost-total deterioration. At the end of the composition one can hear only the powerful atonal countertheme. However, upon listening carefully, the last and almost unnoticeable trace of what at one time was a cheerful waltz can be heard in the background of the powerful countertheme.

Systems thinking encompasses a debate which, in our opinion, brings to light the crisis of Modernity. If careful attention is paid to the themes comprising its strange melody, one might discover, under the loud and powerful theme, timid traits of a melody that cause confusion regarding the nature of this rare discipline concerned with "systems." Faced with such a dialectical structure, one does not know whether one is just awaking from a distant sweet dream or is just about to fall asleep after one of "those days." Systems thinking, as a whole, manifests the great

---

[1] Department of Interpretive Systemology, Systems Engineering School, Universidad de Los Andes, Mérida, Venezuela.

contradiction hidden in the core of the crisis of Modernity.

In order to set forth what is meant by this metaphor, one of the main inaugural themes of modernity, namely, the quest for autonomy, is considered.

1.1. The Project of the Enlightenment

About 200 years ago, in 1784, 5 years before the French Revolution and 8 years after the independence of the United States of America, Immanuel Kant published an essay called *Was ist Aufklärung.* There, he dissected the fibers of Enlightenment: the attainment of autonomy through the use of reason.

> Enlightenment is man's release from his self-incurred tutelage. Tutelage is man's inability to make use of his understanding without direction from another. Self-incurred is this tutelage when its cause lies not in lack of reason but in lack of resolution and courage to use it without direction from another. . . . If I have a book which understands for me, a pastor who has a conscience for me, a physician who decides my diet, and so forth, I need not trouble my self. I need not to think, if I can only pay —others will readily undertake the irksome work for me. . . . *Sapere aude!* "Have courage to use your own reason!" —that is the motto of enlightenment. (Kant, 1784, p. 85)

"*Sapere aude!*" (Dare to know!) was the "waltz" of the Enlightenment, which in turn was the intellectual and affective heart of Modernity. Indeed, "*Sapere aude!*" was a cry for individual autonomy. Its basic intention was to pose the idea of setting oneself free from the cultural power that religion and tradition exercise over the constitution of our *weltanschauungen*, and from the natural power that the physical world imposes on one's body. The power force stemming from culture imposes on us the way of appreciating the world (perceiving and valuing) and the manner in which we ought to act in it. This first power was Kant's main concern. The second power force constrains us physically, just as it constrains and regulates the rest of the physical world. Reason alone had to be the "inner" sword with which to fight those great cultural and natural forces imposed on us from "outside." Reason should, therefore, tell us, from inside, *how to appreciate* the world and *how we ought to act* in it with regard to our fellow human beings. Reason should indicate *how to organize, manage, and control the means in order to attain our ends.*[2] The type of reason concerned with *how we appreciate* the world can be called "*theoretical reason.*" The second type of reason concerned with morals (i.e., how we *ought to* act) can be termed "*practical reason.*" To answer the question "how we ought to act" implies, on the one hand, to decide about our ends, certainly with regard to *a variety of possible ends* and, on the other, to judge about the moral justification of the means to accomplish such ends. The third type of reason, dealing with instrumental possibilities, is called "*instrumental reason*" (following

---

[2] As far as we can see, Kant is not very concerned with this last subject of controlling nature. Rather, his idea of emancipation is concerned with "release" (*Ausgang*) from our own prejudices (from our own "self-incurred tutelage"), from our inner traps. See the quotation from Vickers in Section 1.4.

Habermas).

Both *practical* and *instrumental* reasons are directly concerned with how we act. Practical reason is concerned with discussing possibilities with regard to the ends of human action, whereas instrumental reason is concerned with the organization and control of means, once the ends have been defined. Now, it is clear that means are *meaningful* only in terms of the ends they are to accomplish. Since ends are rationally meaningful only when discussed within a variety of possible ends —and this is the task of practical reason— *instrumental reason is meaningless without practical reason.* But the converse also holds: the meaning of ends depends both on the values attached to the possible ends themselves and on the values attached to the factual implications of the means to accomplish such ends. In order to gain knowledge about such moral implications of means, it is necessary to design possible systems of means which can accomplish the ends. Hence, practical reason is in need of instrumental reason. In this way, practical and instrumental reason are fully meaningful if they constitute a recursive unity (see Fig. 1). Such a recursive unity of reason with regard to action is *authentic practical reason.* Thus, an isolated practical reason which discusses only possible ends, without paying attention to the implications of possible means, might contradict itself with respect to its very endeavour. In turn, an isolated instrumental reason is reduced to sheer dogmatic and meaningless strategic games (inasmuch as no discussion of ends is carried out).
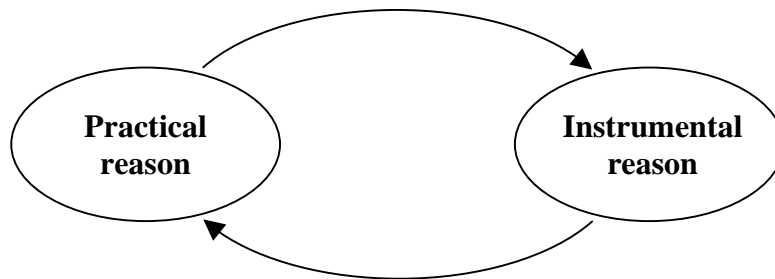
Fig. 1. Authentic practical reason.

Obviously, *how we act upon the world depends on how we appreciate the world.* But the converse also holds: *how we see the world depends on how we act upon the world*, something which was not so obvious until Hegel, Marx, and Schoppenhauer propounded it. These two sides of reason thus appear as two sides of the same coin; they are meaningless without each other. Their possible synthesis is the ground for the very possibility of freedom from those cultural and natural powers that make puppets out of us. As we discuss later on, *the separation of these two sides of reason brought about the antithesis of the original liberating intention that propelled them.* In this way, the notion of a *holistic* reason which gains its full meaning only through the recursive unity of its different *aspects* (theoretical and authentically practical) is arrived at. See Fig. 2.
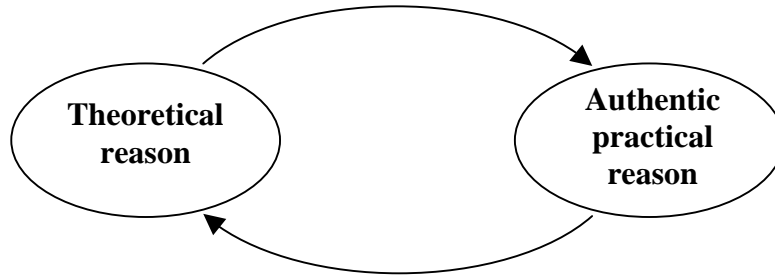
Fig. 2. Holistic reason.

The above ideas are somehow connecting "reasons" with their driving intentions and with the power forces against which those intentions are meaningful. However, this connection is still not clear. In order to clarify it further, Jürgen Habermas' conceptual framework, found in *Knowledge and Human Interests* (Habermas, 1972) and *Theory and Practice* (Habermas, 1973), is used.[3]

1.2. Habermas' Framework: Interests and Reasons

Habermas tells us about "human interests" incorporated in different types of sciences.

> The approach of the empirical-analytic sciences incorporates a *technical* cognitive interest; that of the historical-hermeneutic sciences incorporates a *practical* one; and the approach of critically oriented sciences incorporates the *emancipatory* cognitive interest. (Habermas, 1972, p. 3)

The "expression 'interest' is intended to indicate the unity of the life context in which cognition is embedded" (Habermas, 1973, p. 9). The meanings of these different types of "interests" can be understood in terms of the driving intentions behind the *questions* posed within each type of science.

> Technical questions are posed with a view to the rationally goal-directed organization of the means and the rational selection of instrumental alternatives, once the goals (values and maxims) are given. (Habermas, 1973, p. 3)

The kind of reason used in such an "organization of the means and the rational selection of instrumental alternatives" for *given* ends is a technical or *instrumental reason.* Instrumental reason brings forth, compares and decides about possibilities with regard to means. The ends, on the contrary, are *given.* They are not brought forward, they are not discussed; they are dogmatically taken as "data."

---

[3] An advantage of using the Habermasian framework in this paper is that it has already been used in the systems community several times. See, for example, Mingers (1990), Ulrich (1983), Jackson (1985, 1988), Flood (1990), and Oliga (1988, 1990).

Practical questions, *on the other hand,* are posed with a view to the acceptance or rejection of norms, specially norms for action, the claims to validity of which we can support or oppose with reasons. (Habermas, 1973, p. 3; our italics)

The type of reason used in dealing with practical questions is *practical reason.* It brings forth possibilities with regard to ends and discusses such possibilities in the light of the values that support them and of the type of means organization required by each teleological possibility. In this way, practical reason involves a "moment" of instrumental reason, which is put to the service of the practical endeavor.

Thus, "technical questions" are embedded in a "technical interest," whereas "practical questions" are embedded in a "practical interest."[4] Therefore, there is a clear distinction and conceptual opposition between technical and practical interests; that is, "theories which in their structure can serve the clarification of practical questions" should not be confused with those to the service of a technical interest (which does not preclude the possibility of having a technical "moment" within "practice"). Such a confusion would mean obscurity in the enlightening purpose of the former. It would result in an "illegitimacy" of the practical endeavor. To be sure, Habermas argues that the main source of such an "illegitimacy" —and, at the same time, its main manifestation— is our present difficulty (or impossibility) to distinguish between the "technical" and the "practical." This leads to the concealment of the relation between theory and practice (Habermas, 1973, p. 255).

Present industrial society —the factual result of European Modernity— has committed science to its technical needs. It has done so to such an extent that science is no longer able to play its formal enlightening role. What is worse, the scientific community is not aware of its commitment to an isolated technical interest and rationality. The distinction between the *practical* and the *technical intention* is vital if we want to become aware of our present dogmatic trap in 20th-century technological rationality. This distinction, in turn, requires a *transcendental critique* enabling us to escape from that trap. (Habermas, 1973, pp. 255-256).

Nowadays, practical reason cannot be content with simply bringing forth and discussing possibilities with regard to ends in the light of the values that those possibilities involve and of the possible organization of the means which would accomplish those ends. At present, we find ourselves dominated by the great power of dogmatic instrumental reason serving a sheer technical interest. Therefore, renascent practical reason must fight from the start with those forces that otherwise would not allow its appearance. Consequently, at the present time, the mere practical interest that originally drove practical reason has to be transcended by an emancipatory interest which liberates reason from those preconditions acting upon it. The emancipatory interest would then drive critical reason, revealing our own state of mind —struggle with our own trap— in order to create the preconditions for

---

[4] Remember that "*the expression 'interest' is intended to indicate the unity of the life context in which cognition is embedded*" (Habermas, 1973, p. 9).

5

practical reason.

According to Habermas, the intimate relation between theory and practice coincides with the critical kernel of theory. For example, Freud's theoretical work can be seen as emerging from the basic need which drives therapeutic practice. Critical knowledge reached by the psychotic patient about his own way of appreciating certain situations is in itself the cure for the patient. Thus acquired knowledge, guided by a therapeutic interest, immediately constitutes the therapeutic practice itself. It should be noted that this type of knowledge is not instrumental knowledge, that is, knowledge about the rational means to accomplish given ends. It is, on the contrary, critical knowledge committed to uncovering what has been covered, i.e., committed to truth. Truth, that which is disclosed by knowledge, constitutes the therapeutic action itself. The type of interest underlying this sort of knowledge is *emancipatory* in a double sense: on the one hand, it is emancipatory in the pure critical sense of uncovering what *presencing* covers; on the other hand, it is emancipatory in a more utilitarian sense of liberating the patient from his own psychological trap which produces his psychosis (Habermas, 1973, p. 9).

After this brief account of Habermas' conceptual model concerning the relation among "reasons," interests, and power, the idea of the contradiction embedded in Modernity, of which systems thinking is a vivid representation, is considered again. Thereafter, the problem of the synthesis of "reasons" within systems thinking is discussed.

1.3. The Dialectics of Systems Thinking

The great project of the Enlightenment was to develop theoretical and instrumental reasons under the aegis of practical reason (this project was represented by the waltz in our musical metaphor). Contrary to this intention, the 20th century has witnessed, on the one hand, the oblivion of the practical concern and, on the other, the hyperdevelopment of a highly sophisticated technology. Technology has made possible the manipulation and control of nature and of human beings. But the discussion about human ends to be pursued by this increasingly instrumental power has remained in the closed pages of those enlightened books from the 18th century (commonly regarded nowadays as museum pieces). Thus, the great project of Modernity (the waltz) has given way to its antithesis: the lack of autonomy, the imprisoning of the individual in the invisible trap set by instrumental rationality (the atonal countertheme at the end of "*La Valse*").

Cybernetics, the science of instrumental control and optimization, became the main representative of the domination of instrumental reason and its underlying technical interest. Systems science, systems engineering, systems management, in sum, systems thinking and practice, are the inheritors of this cybernetic thinking and practice. They are, thus, at the edge of the "evolution" of instrumental reason, the front line of that powerful army that is exterminating practical reason and, with it, that great project of the Enlightenment.

But curiously enough, the loud and powerful theme of systems thinking,

representing the domination of instrumental thinking, somehow keeps hiding inside the weak traits of the Enlightenment project. Such traits spring from the gathering of the notion of "wholeness" embedded in the concept of "system" with so-called "systems practice" in organizations that began to take place in the 1960s. Below, it is shown how each of these contributes to those traits of the original melody.

1.3.1. The Notion of Wholeness

If, instead of trying to deal with the "systems approach" in an historical purview, it is done logically, the ontoepistemological claim for "wholeness" is immediately found in its core. The ontological statement, "Things (phenomena) *are* wholes which transcend the mere collection of their parts," is logically followed by the epistemological claim stated as "Things (phenomena) should be studied as wholes and not as mere aggregates of parts." This holistic approach reacts against the reductionist character of modern science. Indeed, it is essentially a reactive approach, manifested in no other way than as a critique toward modern science. The systems ontoepistemological claim is that phenomena cannot simply be reduced to their physical abstraction and then be analyzed (decomposed in parts). That would imply loosing their "emergent property" or holistic sense.[5]

Now, holistic sense is intuitively related to human beings, for whom things have sense. Holistic sense began to appear not as a thing in itself but, rather, as the intimate relation between "things" and human beings. Besides, sense and meaning are very much connected to human values. Values were recognized to be different in different people. The search for holistic sense, then, seems connected with the discussion of values embedded in the means-ends dialectic. In this way, systems thinking suddenly finds itself before a new concern different from instrumental or technical interest: practical reason begins to be rediscovered.

All this sounds intuitively nice. But is such intuition enough for a rigorous scientific approach? The question is unavoidable: What is this *holistic sense* or *emergent property*? How is it related to the "practical interest?" The questions were there, defiant, and awaiting treatment.

1.3.2. Practicing in Organizations

Human activity systems (organizations) were favorite laboratories for the cybernetic tools of systems engineering. The result was that, soon enough, some of the practitioners began to discover that cybernetic tools inherited from the Second World War were being orchestrated within a mechanistic conception of organizations. They began to claim that organizations cannot be regarded as machines or living organisms; rather, they are human constructs whose sense can have different *interpretations* for different human beings. The problem of dealing with organizations began to be seen as more than an instrumental problem of

---

[5] In another paper in this special issue (Fuenmayor, 1991a) we show that this intuition is only a dualistic reminiscence of what should become a phenomenological purview.

organizing means for given ends. Oppenheimer's project to build an atomic bomb, which was later used over Hiroshima, is a good example of what a blind use of instrumental reason can do. The image of the would-be neutrality of instrumental reason began to fade. The ends had to be somehow discussed. But in the light of the new ideas about cultural relativism, *those ends can be interpreted differently by different people.* Practical reason was being rediscovered in the midst of what originally was sheer instrumental interest. However, the theoretical background of the emerging revolution was still quite dim. The theoretical basis needed for a systems approach must explain not only the intuition of wholeness, but also the relation between such an intuition and cultural or interpretive variety.

1.4. The Impossibility of an Interpretive Systems Approach that Lacks an Authentic Critique

Returning to Habermas' framework, a dangerous situation can be seen in which the new reborn child of "interpretive (soft) systems thinking" finds itself. The theoretical awareness of the newcomer is almost null. That is, it rambles on about an intuition of wholeness and of cultural relativism without realizing that it is in need of a new ontoepistemology with an interest other than the instrumental. It is trying to bring back a practical concern without emancipating from the instrumental concern in which it was born.[6] It is somehow trapped in its own invisible trap. The question is, what is the shape of this trap from which practical systems thinking is to be emancipated?

Sir Geoffrey Vickers dramatically depicts the sort of trap about which we are talking.

> Lobster pots are designed to catch lobsters. A man entering a man-sized lobster pot would become suspicious of the narrowing tunnel, he would shrink from the drop at the end; and if he fell in, he would recognize the entrance as a possible exit and climb out again —even if he were the shape of a lobster.
>
> A trap is a trap only for creatures which cannot solve the problems that it sets. Man-traps are dangerous only in relation to the limitations on what men can see and value and do. The nature of the trap is a function of the nature of the trapped. To describe either is to imply the other. . . . We trapped tend to take our own state of mind for granted —which is partly why we are trapped. *With the shape of the trap in our minds, we shall be better able to see the relevance of our limitations and to question those assumptions about ourselves which are most inept to the activity and the experience of being human now.* (Vickers, 1970, p. 15, our italics)

The trap for an interpretive systems approach is the lack of a persistent critique of its own foundations against the ground of the foundations of a positivist instrumentally driven science and technology. Its own foundations are constituted

---

[6] The possibility of an authentic critique of organizations might be jeopardized if that attempt to criticize is defined within the usual context of managerial consultancy.

by an ontoepistemology and by the acknowledgment of an emancipatory interest propelling a critique of present constitution of power in a world dominated by instrumental reason. The ontoepistemology and the critique of power systems are recursively interacting. Notice that the critical purview required to emancipate the interpretive purview is nothing but *reflexively turning back the interpretive purview over its own foundations.* That persistent critique was the job that originally challenged and gave its identity to interpretive systemology. Later, it is explained how this challenge was met; however, first the narrower scene must be depicted.

2. THE NARROWER SCENE FOR INTERPRETIVE SYSTEMOLOGY

Members of the research group in Interpretive Systemology live in Venezuela, one of those "underdeveloped," "backward," "Third World" countries, as they are labeled. All members come from a background in Systems Engineering and are lecturers at the School of Systems Engineering, the University of Los Andes. In 1980 they formed a small study group whose concern was twofold. On the one hand, they were concerned with gaining understanding about this idea of "wholeness" that appeared to be central to the systems approach. On the other hand, they were interested in the possibility of studying social systems. With these two vague thematic aims in mind, members of the group read and discussed various books on Philosophy and Social Sciences. In the meantime, a gradual awareness was gained about what was considered a curious, fascinating, and thought-provoking situation with regard to the culture of Venezuela and of other "underdeveloped" societies.

An important gap between the Venezuelan culture reflected in everyday social behavior and that of the official policies of its institutions and organizations caught the group's attention.[7] It began to appear as if everyday social behavior, which was supposed to depend on the values and interests of people, took quite a different path from the main social purposes and conceptions expressed in the laws and formal objectives of institutions and organizations, official discourses, and all the state's paraphernalia. The group also observed that the gap was not so obvious to the people responsible for official policies and communications, or to the people whose work was apparently oriented according to those policies.[8] The group thought that it was a sort of hidden schizophrenic split between a normative, official social being and a "real" social being. While Venezuelans officially say that they are aiming at some idealized utopian state of affairs, they act in a radically different manner, seemingly without realizing the difference. This phenomenon, called by the group "institutional schizophrenia," turns out to be a good example of a "trap" situation as described in Vickers' quote above.

---

[7] We are especially indebted for this awareness to the frequent discussions held with Dr. Abdel Fuenmayor about the topic and to the books and lectures of Professor J. M. Briceño-Guerrero.

[8] This is not surprising if we bear in mind that we, human actors in the play that is life, do not distinguish very well between the inner meaning of our actions and our official roles. In everyday life we do not distinguish clearly between what ought to happen and what actually is happening.

Seeing the situation through the lens of contemporary anthropology and within the historical scenarios of Latin American societies, then it is not surprising to find the institutional schizophrenia phenomenon in these societies. Venezuelan normative national systems, together with the designed formal shape of its organizations, were literally *transplanted* from European societies. They were slavishly copied from what were and are considered to be "advanced" societies. But why could not the *transplanted* organization take root in a different society, in the same way that transplanted organs sometimes take root in other living beings? One reason is this.

Organizations and, in general, social institutions may be seen as social responses to social problems. The creation and endurance of a social health service, a university, or a computer factory may be seen as the organized response of a society to certain problems associated with the expectations of its members with regard to health, education, and consumption of goods. Although the response may come directly from a particular social group, the organizational endurance and its reshaping tend to be the work of the whole society. In any case, particular social groups are, in some way or another, influenced by society as a whole.

If, on the one hand, a problem results from a difference between a desired state of affairs and the assessment of another perceived as present and, on the other hand, desires and assessments depend on values which vary from one society to another, then it is very likely that the social responses of one society not take root in another different society.

How could institutional schizophrenia be researched further and more thoroughly than with everyday unsystematic observation? How could we know if it was not a mere trick of our imagination as well as of others who had made similar observations? *The need for an interpretive approach which could open the rich interpretive variety hidden beneath this apparent "schizophrenia" was obvious.* Nevertheless, the situation became more complex in the light of a second observation.

Cursory inspection of Venezuela's constitutional ruling apparatus clearly revealed the presence of a leading notion usually labeled with the words "development" and "progress." National plans, which pretend to rule most of socioeconomic activity, programs, laws, and all sorts of formally expressed objectives, are aimed at supporting a process of socioeconomical *development.* Indeed, sustained economic growth through an accelerated process of industrialization is clearly the aim of all those official policies. Wealth springing from such a process and the process itself should, according to Venezuelan laws, take place under fundamental constitutional principles of social justice (equal opportunity with regard to basic needs: health, education, child nourishment) and democratic participation.

In the late 1970s, when this observation was made, more than 95% of the national income came from oil sales (Banco Central, 1979). However, it is important to note that, according to Venezuelan law, all oil is the property of the

democratic State. Now since the last reconstitution of this democratic State in 1958, the official policy has been to invest oil income in the capitalist industrialization process. In this way, the state would manage a process by which the country would pass from a state-owned oil-based economy to a privately owned, diversified, neoliberal economy (see Baptista and Mommer, 1987).

The results of the official policy of "privatization," as it is now called, have been that, by the end of the 1970s, 50% of the oil income was absorbed by only 1% of the population (Baptista, 1980). After the oil prices decreased, between 1983 and 1986, the national debt increased to 29.015 million US$ in 1987 (World Bank, 1987). At the same time, a few Venezuelan entrepreneurs had more than 35.000 million US$ in foreign banks (*El Nacional,* March 19, 1991, p. D18).

In order to give an idea of the present situation, some very eloquent figures are provided: according to a study carried out by Thaís Ledezma and Carlos Padrón (*El Mundo,* May 3, 1991, p. 2), more than 86% of Venezuelan households live in conditions of "poverty" and more than 43.35% in conditions of "critical poverty" (*Ultimas Noticias,* June 2, 1991, p. 18). A family is considered to be living in poverty when its monthly income is lower than $360, the minimum amount needed by a medium-sized family in order to cover the minimum food and household expenses. A family is considered in "critical poverty" when its income is lower than the 170 US$ needed to buy a minimum quantity of food so that its members can escape malnutrition. The point is that there has been a sustained increase in the poverty level of the majority of the population in the last 20 years. Meanwhile, a typical wealthy Venezuelan family has $690 million in foreign banks [public letter from *Causa R* (political party) to the President of Venezuela, 1990].

All these occur in a country whose government is considered democratic (there are public elections), and ideologically supported by governments of developed countries.

What do these commonplace figures in underdeveloped countries mean? Why, in spite of the process of development on which underdeveloped countries are embarked, is the majority of their population apparently becoming poorer and poorer? Why is neoliberal development becoming almost a religion in these poor countries? Are there no other interpretive possibilities? What is the shape of the international power system that favors this situation of dramatic inequality? What are the possible interpretations of the majority? What are their *weltanschauungen?*

It looks as if there might be a variety of possible interpretations whose surfacing is possibly oppressed by official interpretations. These official interpretations coincide with what the more powerful international "forces" claim to be good policies for poor countries. How can the variety of possibly oppressed interpretations be compared with the official ones and discussed? What could be the source of legitimacy of any of these interpretations?

All these questions somehow pointed to the necessity of conducting interpretive investigations of our institutions. This looked like an interesting and original long-term research enterprise to be undertaken by our research group at the

Systems Engineering School where we teach. As this research was being conducted, *the doubts and questions about the ontoepistemological foundation of such an interpretive enterprise* (apparently so different from normal empirical natural science) *and its connection with a Systems Approach began to increase.*

3.THE PROGRAM OF INTERPRETIVE SYSTEMOLOGY

Soft systems thinking criticizes hard systems thinking for not questioning the ends and the values associated with them. Within this scope, the dogmatism of hard systems thinking is viewed as falling into a sort of Vickers' trap. Soft systems thinking claims that awareness must be gained about those basic principles on which institutional practices stand by explicitly questioning them. Nevertheless, soft systems thinking has not applied such a *critical* attitude to the very basis of its own thinking (see Jackson, 1982; Fuenmayor, 1991b). While it claims that it is necessary to interpret human action according to the contexts of meaning or *weltanschauungen* which base and propel it, it has not devoted much effort to understanding and *theoretically* expressing the philosophical weltanschauung it is assuming. Thus, it was necessary to devote some systems thinking to "systems thinking." It then behooved us to design a theoretical "interpretive context" (or "ideal-type model") (Weber, 1904; Fuenmayor, 1985, 1991c) which connected the notion of wholeness to an interpretive approach like the one embedded in soft systems thinking (Jackson, 1982). This was nothing but an ontoepistemology for the interpretive systems approach.

Thus, it was clear that if interpretive systems thinking does not develop an ontoepistemology for itself, which accounts for Holism and the possibility of its understanding, and link it to the relativistic approach that is behind the concept of interpretation; if such a philosophical building is not constructed and always reconstructed; then interpretive systems thinking is trapped in a deadly contradiction.[9] It would fall in its own "trap" (in Vickers' sense). The consequence of such a contradiction is that it will not go beyond a set of slogans which, at most, could be fashionable for a very short period in the particular discipline of management. If, on the contrary, this line of thought, which so far has been vaguely called "soft systems thinking" (more properly called "interpretive systems thinking"), lays such theoretical foundations and recursively links these to a practice that allows its enrichment and its never-ending self-discovery, then we can speak of a possible new science that could rightly be called "Interpretive Systemology." The

---

[9] It is important to stress the idea that when we refer to the *construction* of an ontoepistemological *building*, we do not mean a simple set of propositions and quotations of *ontic* and *epistemic* meaning surrounding a methodological guideline. We do mean a theoretical and philosophical construction of a conceptual *system* which accounts for the holistic and interpretive nature of what-ever-is-the-case, together with the possibility of its systematic understanding. It is an Interpretive Systems philosophy that cannot be expressed in the form of a loose set of predicative judgments typical of natural empirical sciences. Rather, it is a theoretical attempt to deal with the question of Being, of knowledge and of truth from a holistic-interpretive standpoint. It strives to explain the holistic and interpretive structure (not to be understood in static terms) of *what-ever-is-the-case* together with its cognitive possibility. (See Fuenmayor, 1991a and 1991c).

research program for this science (see Fig. 3) should thus contain an ongoing inquiry into its ontoepistemology.

A summary of the ontoepistemology for interpretive systemology is presented in the following three articles in this special issue of *Systems Practice* (Fuenmayor, 1991a, c, d).

Now, as expressed before, the area of research and practice in which both the whole trend of soft systems thinking and our particular research group is interested is that of human activity systems. Particularly, as a research group, we are interested in studying Latin American institutions and organizations. This means that, in terms of our critical interest manifested before, we must draw a theoretical bridge between ontoepistemology and the study of particular organizations. Such a theoretical bridge is constituted by a social theory founded on the ontoepistemology, a theory of organizations embedded in the social theory, and a theory of design (also based on the general ontoepistemology) focused on the subject of human activity systems design (see Fig. 3).
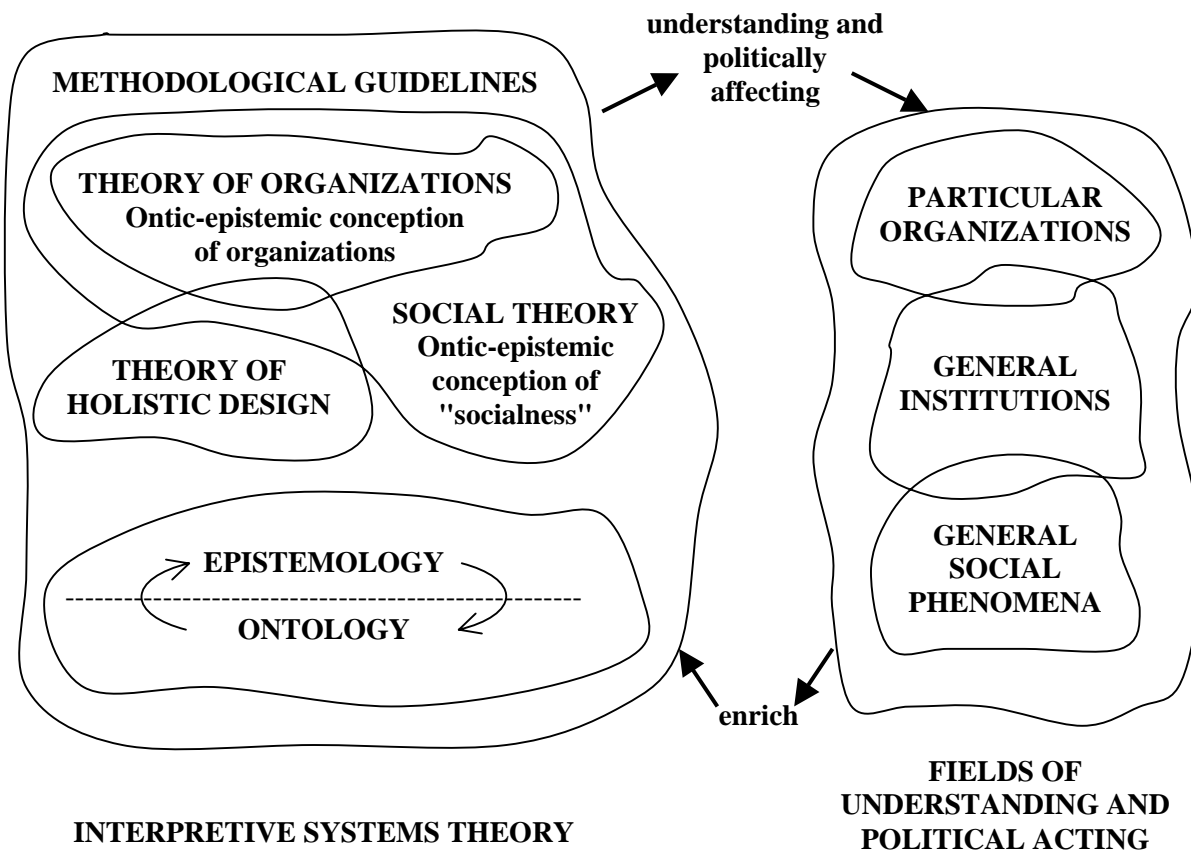
Fig. 3. Interpretive Systemology research program.

A social theory for interpretive systemology should dialectically account for the nature of that which is social (socialness) and the possibility of knowing it. Such

a theory has not yet been constructed. So far, we think that its cornerstone should be the transcendental recursive triad (self ⇔ the other ⇔ otherness) (see Dávila, 1991; Fuenmayor, 1991a). The work of Dilthey, Husserl, Heidegger, Ortega y Gasset, Theunissen, Laing Entralgo, Schutz, Weber, Berger, Luckmann, and others, with regard to "socialness," constitutes a good starting point for such a purpose.

A first version of a theory of organizations for interpretive systemology has been published elsewhere (Fuenmayor, 1988). Here, linking interpretive diversity concerning organizations to the conflicts of power that encompass their dynamics, a general conceptual framework for organizational studies is drawn.

Since organizations, conceived as human activity systems, are, one way or another, concerned with the activity of designing (activities, resource distributions, technological processes and devices, empowerment strategies, etc.), a theory of design, especially concerning design activities in organizations, is unavoidable. A first version of such a theory has been developed by López-Garay (1986).

The theoretical aspect of the program of interpretive systemology is to guide and provide sense to the studies and design experiences in particular institutions and organizations. Such studies should, in turn, enrich the theoretical basis. At present, the main interest of our research group regarding such studies is the phenomenon of organizational schizophrenia in Venezuelan organizations This implies the interpretive understanding of Venezuelan organizations. Our aim is to find interpretive contexts that can account for organizational behavior. In this way, we should be better equipped to discuss the extent to which organizational behavior coincides with what is supposed to officially guide such behavior. But more importantly, we should be able to gain understanding of the actual roles those organizations play in the society to which they belong and in the power system to which they contribute. This would mean a better understanding of the actual Venezuelan social being that is hidden under the mask of Western appearances. The last two articles in this issue of *Systems Practice* illustrate the sort of organizational studies which are being conducted within our research program.

4. CONCLUDING REMARKS: ON INTERVENTION

Intervention is not foreign to the systems movement. In fact, applications of the systems approach (both "soft" and "hard") as an alternative to intervention in social systems, particularly in private organizations, has been at the root of the emergence and popularization of the systems movement. Therefore, the question arises as to how Interpretive Systemology deals with such an issue and how its treatment of *intervention* differs from other ways of looking at it within the systems movement. Only a few comments are offered below in relation to this question. In a forthcoming article the subject of *intervention* will be addressed in a more thorough way.

The word *intervention* comes from "intervene," which means "[to] come between so as to prevent or modify result, etc." (*The Concise Oxford Dictionary*, 1988, p. 526). In the study of organizations, the systems approach has been seen as

an effective, efficient, and rational tool for modifying organizational behavior toward a more "desirable" state. Therefore, most systems "practice" has been directed toward the design and implementation of a system of means capable of producing organizational change in a desired direction. From here, a view of *systems intervention* as the effective and efficient management (control) of organizational change has emerged.

However, "interveners" or "practitioners" adopting such a view have been criticized for taking the desired state for granted (Churchman, 1968; Checkland, 1981). In so doing, the meaning and implications of pursuing the given end are not discussed, thus leaving the door open for "Oppenheimer's project"-type syndromes (commented on before in this article). What is more if the ends are left undiscussed, or if only the ends of those who hold power in the organization are taken into account, the "means-oriented" view of intervention might then be contributing to reinforce a state of domination in the organization (Jackson, 1982; Ulrich, 1983; Section 2.2 of this article).

Conscious of these and other related issues, "soft" systems practitioners propose a different view of *intervention.* The design of organizational modifications must involve discussion of ends and means. The role of the systems intervener is also modified in light of such a view. The practitioner must go beyond the role of an "expert" whose technical knowledge is used to design an efficient and effective system of means. The systems practitioner must now become a "facilitator," rather than an expert, able to create the appropriate conditions for organizational actors and even for those affected by the organization, in order to learn about the moral and factual implications of different end-means possibilities. The question of participation then becomes paramount in this second view of *intervention.* The basic conditions for participation must be such that the less privileged participants, both in power and in ability to express their points of view, can be aided, thereby counterbalancing such disadvantages (Ulrich, 1983).

In Habermasian terms (discussed in Section 2.2), this second view of *intervention* is propelled by a "practical" interest. The intervention process is geared to bring forth possibilities for organizational ends and to discuss them in terms of their value contents. On the contrary, the first view of *intervention* is propelled by a "technical" or "instrumental" interest, preoccupied with the effective and efficient organization of the means for some given ends, However, both views on *intervention* share a particular focus on organizations as such, namely, the organization is seen as the target of *intervention*, either to control it toward a given state or to favor less privileged internal conditions of power.

Notwithstanding, consideration of the role of the organization in the power structure of the society to which it belongs can give rise to a third view of *intervention.* This view is closer to the foundation and emancipatory interest (in the Habermasian sense discussed in Section 2.2) which propels Interpretive Systemology. Now, given that organizations are social responses to social problems and that the modern social world seems dominated by instrumental reason at the

service of certain international economic and political interests, organizations are thus both playing, in one way or another, an important role in such domination and are at the same time products of this domination. As such, they are manifestations of this alliance of instrumental reason with international economic interests.

In "underdeveloped" countries this alliance manifests itself in the peculiar role which organizations and institutions play in these societies. For instance, in Venezuela (see Section 3), organizations and institutions tend to support the power structure that controls and maintains the uneven distribution of wealth, education, health and the unfair administration of justice. This "internal" power structure is also related to international economic and political structures of domination. In fact, organizations can play a double role in underdeveloped nations. On the one hand, they serve as "drain-valves" through which their material and labor resources are controlled and drained toward the developed nations. On the other hand, they must regulate the exploited social systems so as to make this drain of wealth stable. An example of this kind of stabilizing role of institutions is given in the case study of the University of Los Andes presented in this special issue.

In light of the above social panorama and due to the fact that the members of the Interpretive Systemology group were born and reside in an "underdeveloped" nation, the problem of disclosing and denouncing such structures of societal domination has become of paramount concern for the group. This concern has helped to shape the *critical emancipatory* nature of its view of *intervention.* Its view is critical because it aims to uncover the constitution of power in a social world dominated by the combined and mutually reinforcing interaction of instrumental reason and economic growth. It is also emancipatory because the uncovering of the constitution of the "trap" (in Vickers' terms) is the precondition for the liberation from it.

The view of *intervention* given above is clearly reflected in the two organizational studies presented in this special issue of *Systems Practice* and contrasts with the other two types of intervention: with respect to the first type the contrast lies in the fact that Interpretive Systemology's view of intervention is not driven by an instrumental interest; and in relation to the second type, the contrast comes about because its focus of concern is not merely on the internal power structure of institutions and organizations but, rather, on the role that they play in the structures of domination at the societal level.

ACKNOWLEDGMENTS

REFERENCES

Banco Central (1979). *Informe Económico.*

Baptista, A. (1980). Gasto publico, ingreso petrolero y distribución del ingreso. *El trimestre Económico* **XIVII**(2), 431464.

Baptista, A., and Mommer, B. (1987). *El petróleo en el pensamiento económico venezolano*, Ediciones IESA, Caracas.

Churchman, C. W. (1968). *The Systems Approach*, Dell, New York.

Checkland, P. (1981). *Systems Thinking, Systems Practice*, Wiley, London.

Dávila, J. (1991). Foucault's interpretive analytics of power. *Syst. Pract.* **4**(6) (in press).

Flood, R. L. (1990). Critical systems thinking and the systems sciences. In Banathy, B. H., and Banathy, B. A. (eds.), *Proceedings of the Thirty-Fourth Annual Meeting of the International Society for the Systems Science.* Portland, Oregon, pp. 15-33.

Fuenmayor, R. L. (1985). *The Ontology and Epistemology of a Systems Approach*, Ph.D thesis, University of Lancaster, Lancaster.

Fuenmayor, R. L. (1988). *Resumen de una teoría sistémico-interpretativa sobre organizaciones*, Working Paper, Universidad de Los Andes, Mérida, Venezuela.

Fuenmayor, R. L. (1990). The boundaries between critical systems thinking and interpretive systems thinking. *Syst. Pract.* **3**, 585-591.

Fuenmayor, R. L. (1991a). The self-referential structure of an everyday-living situation: A phenomenological ontology for interpretive systemology. *Syst. Pract* **4**, 449-472.

Fuenmayor, R. L. (1991b). Between systems thinking and systems practice. In Flood, R. L., and Jackson, M. C. (eds.), *Critical Systems Thinking: Directed Readings*, Chichester, Wiley.

Fuenmayor, R. L. (1991c). Truth and openness: An epistemology for interpretive systemology. *Syst. Pract.* **4**, 473-490.

Fuenmayor, R. L. (1991d). The roots of reductionism: A counter-ontoepistemology for a systems approach. *Syst. Pract.* **4**, 419-447.

Habermas, J. (1972). *Knowledge and Human Interests*, Heinemann, London.

Habermas, J. (1973). *Theory and Practice*, Polity Press, Cambridge.

Jackson, M. C. (1982). The nature of "soft" systems thinking: The work of Churchman, Ackoff and Checkland. *J. Appl. Syst. Anal* **9**, 17-28.

Jackson, M. C. (1985). Social systems theory and practice. *Int. J. Gen. Syst* **10**, 135-151.

Jackson, M. C. (1988). Systems methods for organizational analysis and design. *Syst. Res* **5**, 201-210.

Kant, I. (1784). What is enlightenment? In Kant, I. (ed.), *Foundations of the Metaphysics of Morals*, Bobbs-Merrill, New York.

López-Garay, H. (1986). *A Holistic Interpretive Concept of Systems Design*, Ph.D. thesis, University of Pennsylvania, Philadelphia.

Mingers, J. (1990). Current developments in critical management science (submitted for publication).

Oliga, J. C. (1988). Methodological foundations of systems methodologies. *Syst. Pract* **1**, 87-112.

Oliga, J. C. (1990). Power-ideology matrix in social systems control. *Syst. Pract* , 31-49.

Ulrich, W. (1983). *Critical Heuristics of Social Planning A New Approach to Practical Philosophy*, Haupt, Berne.

Vickers, G. (1970). *Freedom in a Rocking Boat*, Penguin Books, London.

Weber, M. (1904). "Objectivity" in social science and social policy. In *The Methodology of the Social Sciences*, Free Press, New York, pp. 49-112.

World Bank (1987). *External Debt Indicators*.