

“Systems Science: Addressing Global Issues” —The Death Rattle of a Dying Era?

Ramsés Fuenmayor¹

INTRODUCTION

What does “*Systems Science: Addressing Global Issues*” mean for us nowadays? Which historical interpretive contexts are relevant for such a meaning? These questions lead the way for this inquiry.

This inquiry can be seen as a regressive journey through historical thinking in order to discover where we are standing when we utter this phrase, “*addressing global issues from a systems perspective*”. This standing is the place from which the trip starts but, it is also what we want to see by moving away, by receding, from it.

The excursion’s path follows a three dimensional spiral shape. It goes from up and out of the spiral down to its centre. It is like a journey to the centre of some planet. As we walk around and down the spiral towards its deep centre, we will visit some spots from where we can closely see places that we have already passed by. However, from the new spot, those places look more external and in an upper position in relation to our path. We know from the start that we will never reach the centre.

The paper you are beginning to read is an account of this inquiry. It is a sort of diary of that journey where the venturing forth is propelled by questions.

On board! What then does “*Systems Science: Addressing Global Issues*” mean for us nowadays?

“Global” means “covering, influencing or relating the whole world” (Collins English Dictionary, 1979, p. 619). “Issues”, in the Conference title “addressing global issues,” means “an important topic for discussion” (Concise Oxford Dictionary, p. 533). The title of our Conference thus seems to mean “discussing, considering as a theme, focusing on important topics (subjects, questions) concerning the whole world.” It thus seems clear what the main theme of this Conference is. The organisers of the Conference want us to *discuss, from a systemic perspective, certain situations or “problems” that are affecting the whole world.* But, is it really clear what this desire or command means? How and why does it

¹ Department of Interpretive Systemology, Escuela de Ingeniería de Sistemas, Universidad de Los Andes, Mérida - Venezuela.

become a subject for academic discussion? Certainly, as soon as we ask some initial questions, the apparent clarity fades away. Witness some of these questions.

In principle, most of us would accept that to see something, say x , *from a systemic perspective*, means to see x as a whole (or a system-whole) --not as a mere aggregate of parts. Hence, our mission is to discuss, from a holistic perspective, global issues. But, global issues cannot be but holistic. Is this not redundant? How can we discuss certain situations or “problems” that are regarded as affecting the *whole* world in any other way that is not systemic? However, if this were so, it would seem that the notion of the “world” and the notion of a “systems approach” are inseparable. Are they really so? We, members of that diverse and ill-structured community called the systems community, have the feeling that the notion of a systems approach is a rather neglected one. On the contrary, it is commonly accepted (so commonly in fact, that we do not even think about it) that the notion of the world is a world-wide notion (What a platitude!, one would say). Besides, whereas we are usually told that the systems approach is something new (1940’s), we have the impression that the notion of “the world” has being there for ever.² How, therefore, can the notion of a “systems approach” and that of the “world” be inseparable, if the notion of the world is both worldwide and eternal whereas that of a “systems approach” is new and rather neglected? There seems to be something tricky in this argument. What is it? Maybe we should be more careful about the meaning of “the world.” What do we mean by “the whole world”? As soon as we seriously try to answer this apparently simple question, our subject of discussion becomes more obscure. It becomes even more obscure when we ask ourselves, *how can the “whole world”, or something pervading the “whole world”, be an “issue”?* What do we mean by something being an issue? Bear in mind that this questioning originally arose from the discussion about the relationship between the notion of “the world” and that of a “systems approach.” To be sure, the attempt to answer these questions will lead us to suggest that, at the end of twentieth century in Western cultures, “global problems” are neither “global” nor “problems.” Even less are they “global issues”. Indeed, I would like to suggest that the whole subject of “global problems” or “global issues” is rapidly becoming no more than an anachronism. Furthermore, the inquiry we are to undertake will show that what makes anachronistic the idea of global issues, also makes anachronistic any thoughtful possibility of “systems thinking.” If this is the case, I would like to suggest that “systems thinking” is rapidly becoming no more than an empty “plastic phrase” useful only for selling management consultancy and courses.

² One of the outcomes of the enquiry we are about to undertake is that neither the notion of a “systems approach” is new nor the notion of “the world” is too old.

THE WORLD

The first meanings of the word “world” listed in The Concise Oxford Dictionary are “1. time or state or scene of human existence... 2. secular interests and occupations... 3. the universe, all creation, everything... 4. everything that exist outside oneself... 5. the earth, heavenly body supposed to resemble it, its countries and their inhabitants, all people, the earth as known or in some respect limited...” (p. 1242). If we heed these meanings, the order in which they are presented and, in general, the contexts in which we use the word “world” in our everyday language, we have to admit that “the world” does not simply mean the bare planet earth. It is something more which, in one way or another, is related to us, human beings. The original meaning of the word “world” in the English language already shows that the notion of “human being” is deeply embedded in that of “the world.” “World” comes from Old English (prior to 1150) *w(e)orold* from *wer*, man, and *ald* which meant “age”, but also meant “life.” *World, the life of man? World, the age of man? World, the temporary openness toward which human being is essentially and continuously thrown?* We will comment later on about the very rich meaning that might be hidden beneath the English origin of the word “world”, but let me now return to its more simple meaning in present everyday language and in scientific discourses.

As we understand it nowadays, “the world” is the totality of the *environment* of human beings; what surrounds us and is thus affected by us and affects us. In this sense of “whole human environment”, we speak of “world” with different degrees of universality. When we say “the world of a 5 years old child”, “the world of a nineteenth-century German peasant of the Black Forest”, “the world of an inhabitant of an isolated tribe in the midst of the Amazon jungle”, we are referring to more particular “worlds” than when we say: “the world is threatened by pollution.” In the first case, corresponding to the first three examples, there is a particularising possessive *of* (“the world *of*...”), which makes explicit a sort of *locus* of a particular world. Notice that in this sense we admit the existence of “different worlds.”

In the second case (last example), where “the world” is meant in a more universal sense, the possessive “*of*”, which refers to the particular *locus*, is omitted. In this case we do not need to mention the particular *locus* for we are apparently referring to the world of the *whole* human race. Then, whereas in the first case the notion of world is tinged with a more subjectivist tone, which implies the existence of different “worlds”, in the second case it appears as more objective. One could think that this objectivity is based on the fact that the world of the whole human race is the common region (or intersection) of all possible particular worlds. Hence, the private³ or subjective part of each particular world --i.e., that part of each individual’s world which is not common to *all* other worlds-- would not be considered in this common or public world. This would be the reason why “the

³ The notions of “private” and “public” worlds are used by Bertrand Russell (1959) in this sense.

world”, in its universal sense, is intended in a more physical sense than particular worlds.⁴

The current notion of “world” presents another important aspect that is worth noting. As commented before concerning the notion of particular worlds, we seem to admit the existence of different worlds. This plurality of “worlds” is based on the plurality of subjective and environmental conditions corresponding to each *locus* of each particular “world.” For example, we could easily agree that *the world of* an inhabitant of an isolated tribe in the midst of the Amazon jungle (the totality of his environment) would be very different from *the world of* the President of the United States. One could poignantly say: “of course, the hunting preserve of the President of the United States is much bigger than that of the savage of the jungle!” If the joke and the poignancy involved in this phrase is left aside in order to consider its rich meaning, two important aspects or sides of the notion of “the world” arise. Indeed, the notion of the world has an immediate reference to both, a cognitive totality and a power domain.

The first side, the cognitive totality (the sum total of what is known or can be known), is equivalent to the idea of an image, *picture*, or vision of the world (Weltanschauung). It is, in each case, the picture drawn from the perspective of the particular world *locus* (i.e., in our example, from the point of view of the savage or from the point of view of the President). If we are talking about “the world” in general, we would be referring to the common region of all particular world pictures. Notice that if you try to “see” the content of what you “have in mind” when you think of “the world picture” and when you think of “the world”, the difference between the two is rather obscure.

The other side, the power domain, is a sort of “space” defined by an activity or set of activities by which this “space” is conquered and controlled (from the point of view that gives meaning to these activities). In our previous example, the power domain is defined by the activity of hunting.

Both sides of the notion of “world” are tightly interdependent. The cognitive totality (the world picture) is, to a certain extent, derived from the activity that defines the power domain and the power domain in turn requires the cognitive totality to direct its activity. This last point demands some further explanation.

In order to act within a territory (a power domain), we need to have a map (picture) of that territory. We say that the map is a *representation* of the territory. In order to act within our world, we, therefore, need to have a picture of that world. Furthermore, we tend to think that we cannot avoid having a picture of our world. When, for example, we speak of “global issues”, we really mean issues (subjects for discussion concerning certain aspects) of our world picture. We seem to need to

⁴ It can be shown, however, that the universal world is not really the public world arising from the intersection of all possible particular worlds; it is, rather, an imperial particular world imposed on other particular worlds.

have a “world picture” in order to think about issues concerning that “world picture.” What is the difference then between “world” and “world picture”? When we reflect deeply on the difference between the map and the territory in reference to the world --i.e. when we attempt to grasp what the difference is between what we have in mind when we say “world” and when we say “world picture”-- we seem to get nothing out of it.

Although the world picture of the savage and that of the President of the United States are admittedly different, it is obviously assumed (in the former characterisation) that both have such a thing as a “world picture.” Is the notion of “world picture” applicable to all human cultures at all times? In other words, is there such a thing as a “world picture” in every culture? *Is not the notion of “world picture” meaningful only for that culture called Modern Europe?*

“WORLD PICTURE”: AN OFFSPRING OF MODERNITY⁵

According to Heidegger, *there was not such a thing as a “world picture” before modern age.*

The world picture does not change from an earlier medieval one into a modern one, but rather the fact that the world becomes picture at all is what distinguishes the essence of the modern age. (Heidegger, 1952a, p. 130).

We can easily agree that the medieval or the Bantu world pictures are different from the modern European one, but how could it be said that there is no such thing as a medieval or a Bantu world picture? Most of us, scholars living at the end of the twentieth century, accept the idea of the relativity and variety of world pictures. Indeed, after more than half a century of social anthropology (and after 20 years of soft systems thinking in our small systems community) we have finally --intellectually, and in most cases, only intellectually-- accepted the variety of *Weltanschauungen*. Furthermore, we accept that what we perceive, know and value is dependent upon our “appreciative system” --to use Sir Geoffrey Vickers’ term. That is one thing, however we now seem to be asked to accept *a second level of relativity so that the very concepts (“world picture”, “value systems”, etc.) over which we planted our twentieth-century relativity become also relative!* Is not this a mere scholarly game? If we are puzzled at all about this strange issue --particularly about the idea that there is no such thing as a “world picture” in some other cultures, we must then start by providing an answer to a preliminary question: *What is the meaning of “world picture” in the Modern Age?*

⁵ What follows is inspired by the work of Martin Heidegger. Heidegger’s thinking about modernity, supported here and there by some ideas arising from the work of Michel Foucault and Alasdair MacIntyre, and from the onto-epistemology of interpretive systemology is, in my opinion, a rich source for a deep understanding of the present.

It seems reasonable to search for an answer to this question in what is commonly taken as the heart of modernity, namely the Enlightenment. And, within the Enlightenment, who better than Immanuel Kant to enlighten our way through the proposed question?

The “World” as a Heuristic Transcendental Idea

The “world”, according to Kant, is one of the three “transcendental ideas” which together with “man” and “God” constitute Reason (*Vernunft*), the highest level of human reason. It is important here to distinguish between “Reason” (with capital “R”) and “reason” (with small “r”). They correspond to the two meanings Kant gave to the word “*Vernunft*.” In a general sense, reason (with small “r”) is the faculty of human knowledge beyond intuition. Now, this “reason” is divided into “understanding” (*Verstand*), or faculty of judgment, and “Reason” (in a narrower sense), the highest faculty of human knowledge beyond intuition. Thus, Reason (in the narrower sense) is the highest faculty of reason (in the wider sense). “Understanding” is that “power of thought” by which the manifold of representations given in intuition is conceptually combined in order to produce meaningful experience (Kant, 1781/87).

Sensibility gives us forms (of intuition), but understanding gives us rules. The latter is always occupied in investigating appearances in order to detect some rule in them. Rules, so far as they are objective,... are called laws. (Kant, 1781/87, A126)

The “understanding” is thus “the lawgiver of nature” (Kant, 1781/87, A126); hence, natural science’s reason *par excellence*. However, according to Kant, reason cannot be satisfied with the scientific activity of finding and verifying laws of nature:

Reason is impelled by a tendency of its nature to go out beyond the field of its empirical employment, and to venture in a pure employment, by means of ideas alone, to the utmost limits of all knowledge, and not to be satisfied save through the completion of its course in [the apprehension of] a self subsistent systematic whole. (Kant, 1781/87, B825)

The task of Reason (in the narrower sense) is to go beyond understanding towards the apprehension of “a self subsistent whole.” *Reason is thus conceived by Kant as holistic thinking*, compelled by the need to provide systemic (“systematic” in Kant’s words) accounts. Kant’s Reason (in the narrower sense) can thus also be called “*holistic reason*.” Now, holistic reason is, according to Kant, the “faculty of principles” or *transcendental ideas*. The *transcendental ideas* (as principles) of holistic thinking are those which holistically represent the essential realms of

entities, namely, “God”, “man” and “world.”⁶ However, they do not show the objects they are representing as *given* and *present*, but only as ideas. They do not have the “ostensive” function of showing an object in its specific content. For example, when I see this chair (this chair is *given* to my sensibility), I can say, “*this* is a chair.” That is to say, I can *identify* the given object with my idea of a chair (or I can see it “through” the idea of a chair) and *indicate* it. Conversely, when I close my eyes and think what is meant by the idea of a chair, I can imagine a particular chair. However, with respect to the idea of “the world”, something quite different takes place. I am never before an object of which I might say, “this is the (whole) world.” Neither can I imagine a concrete object when I think of the world. When I try to imagine *what* is meant by “the world”, I might imagine the planet Earth, but, as already discussed, that is not the (whole) world. In Kant’s words,

The [transcendental] idea is thus really only a heuristic, not an ostensive concept. It does not show us how an object is constituted, but how, under its guidance, we should *seek* to determine the constitution and connection of the objects of experience” (Kant, 1781/87, B699)

Thus, Kant thought that our thinking in general (intuition and understanding) is guided by transcendental ideas which organise our experience into transcendental wholes.⁷

Notice that when referring to the chair (or to any other given object) and its representation (idea), we think of a one-to-one correspondence between the representation (the idea) and what is represented (the “object”, “quid”, “referent”, or content of the representation), but when we refer to “the world” (according to Kant), there is not such a one-to-one correspondence between the “object” and its representation. Hence, the unity of the transcendental idea and the unity of what it represents are not different. “*World*” and “*world picture*” are thus the same. But, one could argue, if the representation and that which is represented are the same, there is not such a thing as a *representation* of something. “World” (according to Kant) is certainly a representation, but a very particular one. “World” (and the other transcendental ideas) is a sort of great “active file” in which we classify our experience. I say “active” for it is not just a file where we “keep” information. The file itself renders the “information” it keeps meaningful. “World” is thus, both a tool and a constituent of holistic reason. It is a transcendental whole which makes the

⁶ When Kant is referring to “world”, “God” and “man” as transcendental ideas, he means the essence of “world”, “man” and “God.” For example, “man”, as a transcendental idea, is not a particular man of whom I think “that is a man.” “Man”, as a transcendental idea, is that which, essentially, I am in each case; it is that which is searched with the Cartesian question “What am I (in each case)?”

⁷ Notice how the notions of “holistic thinking” and of “the world” are intimately connected in Kant’s thought. We will come back to this point later on because it is particularly important for our topic of “addressing global issues from a systemic perspective”.

manifold it contains meaningful beforehand. The unity of such a manifold is nothing but its holistic meaning.

Kant has given us an indication of what is originally meant by “world picture” in modern thinking and why “world” and “world picture” are the same thing. Furthermore, Kant has provided us with an important hint for thinking about the *raison d’être* of the necessary link between global issues (world issues) and a systems approach; namely, *the world picture is both a propellant and a result of holistic thinking*. Let us recover the thread of that link in order to pose a question which shook the ground of the whole Kantian edifice and, with it, the whole foundation of modern thinking.

The Supreme Holistic Unity of Reason

The idea of “the world” (world picture) is, on the one hand, (one of) the *a priori* mental device(s) (heuristic idea) by which holistic reason attempts to comprehend *what is given in experience along time into a systemic whole*. On the other hand, it is the representation of one of the three great regions which constitute the whole of Being. But, just as each one of the three great holistic representations is a consequence of the work of the corresponding transcendental idea, the whole of Being must be a consequence of the working together of the three transcendental ideas. If this is the case, there must be a supreme unity of holistic reason that provides the possibility for the synthesis of the three transcendental ideas. Hence, from a holistic perspective, a question is unavoidable: *What is the relationship between the three transcendental ideas and the holistic unity they must constitute if holistic reason is a system whole?* Let me explain this fundamental question.

According to Kant, the systemicity involved in the idea of holistic reason is twofold: On the one hand, holistic reason endeavours to provide a holistic account of the totality of Being. On the other hand, holistic reason itself must have a systemic nature. Kant’s task was to systemically describe the systemic nature of holistic reason. For that purpose he had to account for the unity of the whole system of reason. Particularly, he had to explain how the three transcendental ideas constitute the supreme holistic unity of reason. This explanation required, in turn, an explanation of how such a supreme holistic unity provides the foundation for the three transcendental ideas. Now, remember that holistic reason’s final endeavour is to provide a holistic account of the totality of Being. But, just as each of the three transcendental ideas merge together in a strange sameness with each of the three great regions of Being, the supreme holistic unity of reason must, somehow, also coincide with --be the same with-- the whole of Being. And here we come to the crux of the question: *What is the nature of that supreme holistic unity of reason which is the same with the whole of Being?* What is the nature of such Sameness? How can it be thought of? This supreme totality, characterised by that sameness in which the holistic unity of reason and the whole of Being merge together, cannot

depend upon anything, for it is the source of everything. It must be *absolute*. But how can it then be thought or grasped in anyway?

Kant failed to provide a final reply to these questions concerning the {supreme unity of reason - whole of Being}, to which he devoted his last decade. (Heidegger, 1971, p. 54, my translation). We can, however, find in his work some traces that indicate the general preconceived region where Kant was looking for a possible solution to the supreme problem of his thinking.⁸ If we look attentively enough, we can also find, around the frontiers of such a preconceived region, that which bars the way to the sought answer. Furthermore, such an enquiry will also show the general ontological assumptions of Kant's thinking which remained immune to his own critical endeavour. Such assumptions will, in turn, lead us to gain some understanding about why the world picture is only modern.

An important clue for discovering those hidden ontological assumptions can be found in the "Deduction of the Pure Concepts of the Understanding" of the "Critique of Pure Reason." In this section of Kant's most famous work, we can find a trace of that which we are searching for, namely, a possible shape of that supreme unity of holistic reason which, at the same time, would be the supreme principle of human knowledge. Indeed, in section 16 of the second edition of the "Critique of Pure Reason", one can read: "*the principle of apperception is the highest principle in the whole sphere of human knowledge.*" (Kant, 1781/87, B135). If the "principle of apperception" is the highest principle of the whole of reason (in the wider sense), it is also the highest principle of holistic reason which, as previously explained, commands the rest of human reason. This means that the "principle of apperception" must be directly related to that supreme holistic unity of reason which is the same with the whole of Being. But, *what is this "principle of apperception" and how is it related to the supreme holistic unity of reason that commands the whole of human knowledge?*

According to Ferrater Mora (1984, Vol. 1, p. 180), since Descartes' times, "apperception" is understood as a perception accompanied by a self-consciousness of such a perception. Whereas perception is just perception of something, "apperception" is a perception of the perception of something (I perceive that I am perceiving). Leibniz accused Descartes of forgetting that not all perceptions are accompanied by a self-consciousness. There are also, he argued, some absentminded or simple perceptions, which should be distinguished from the self-conscious perceptions or "apperceptions" (Ferrater Mora, 1984, Vol. 1, p. 180)

Now then, what is the relationship between "apperception", understood as a self-conscious perception, and the "principle of apperception" to which Kant

⁸ For that purpose we will implicitly use the onto-epistemology of a systems approach presented in Fuenmayor (1991b) as a non-explicit interpretive context for providing a sense to those traces in Kant's work. To make it explicit would drive us too far away from the purpose of this writing.

referred? And again, how is this Kantian “principle of apperception” related to the supreme holistic unity of reason which is the same with the whole of Being?

As explained before, Kant thought that “*reason is impelled by a tendency of its nature*” to the apprehension of “*a self subsistent systematic whole.*” Such a “self subsistent systematic whole” is the supreme unity that merges together the whole of reason and the whole of Being, i.e. the “*absolute.*” Now, according to Kant, in order to understand this holistic tendency of reason, it was necessary to understand how the manifold given in experience can be synthesised into those holistic units represented by the three transcendental ideas and, further, how these three transcendental ideas merge together into the (highest) “self subsistent whole.” The questions, reflectively posed to himself (in his condition of any human subject), were “what is the synthetic unity of the manifold given in *my* experience?” and “how is it possible?” Put otherwise, what is the unity of all that has been given to *me* all along *my* life? The question was already showing its answer: “I” am the synthetic unity of all my experience. If there were not a sort of continuous apperception in all *my* experiences, they would not be *my* experience, hence they would pass unrecognised. In Kant’s words,

It must be possible for the ‘I think’ to accompany all my representations; for otherwise something would be *represented* in me which could not be thought at all, and that would be equivalent to saying that the *representation* would be impossible, or at least would be nothing to me. (Kant, 1781/87, pp. B131-B132, my italics).⁹

This means that the unity of consciousness, which is equivalent to the unity of the manifold given in experience, must be intimately related to the “I think”.

All the manifold of intuition has, therefore, a necessary relation to the ‘I think’ in the same subject in which this manifold is found. But this representation [‘I think’] is an act of *spontaneity*, that is, it cannot be regarded as belonging to sensibility. I call it *pure apperception* ... or ... *original apperception* because it is that self-consciousness which, while generating the representation ‘I think’ (a representation which must be capable of accompanying all other representations, and which in all consciousness is one and the same), cannot itself be [derived from]¹⁰ any further representation. (Kant, 1781/87, p. B132).

⁹ As we will discuss later, the notion of *representation* is strongly conditioning both the will to system and the notion of “world picture.”

¹⁰ I have written, “cannot itself be [derived from] any further representation” instead of, “cannot itself be accompanied by any further representation” as it is written in the English translation by Kemp Smith, for there is an obvious contradiction between this expression and what is written in parenthesis just before it. My substitution is based on the fact that, according to Goldschmidt, instead of “*begleitet*” (“accompanied”) it should be read “*abgeleitet*” (“derived”). This is written in a note to the Spanish translation of the *Critique of Pure Reason* by Pedro Ribas (1781/87.S, p. 154). Another possible solution to the contradiction is given by J.M.D. Meiklejohn in his/her English translation of the same work. Meiklejohn makes a less literal translation in order to solve the contradiction, “...because it is a self-consciousness which, while it gives birth to the

Original apperception is thus an *act* or a *principle*¹¹ which synthesises all my experience into a supreme unity of consciousness represented by the “I think.” This is why the “principle of apperception is the highest principle in the whole sphere of human knowledge.” The supreme unity of consciousness is directly responsible for the unity of the “I am” in each particular case. This unity of the “I am” in each particular case is the unity of the “active self” (“I am” the one who is doing this). However, such unity of the “I am” is only possible on the grounds of the identity of the self along time (“I have been”). This passive self is the synthesis of the manifold of what-I-have-been, which can be synthesised on the grounds of the unity of the active self. Both, the active self (“I am”) and the passive self (“I have been”) have the same name: “I.” Notice that the “active self” and the “passive self” constitute what we have called (and extensively discussed) elsewhere an “essential recursive unity” (Fuenmayor, 1991a). We speak of an “essential recursive unity” constituted by A and B, when each one’s own possibility of being is founded on the other (*B cannot be without A and A cannot be without B*). See Figure 1.

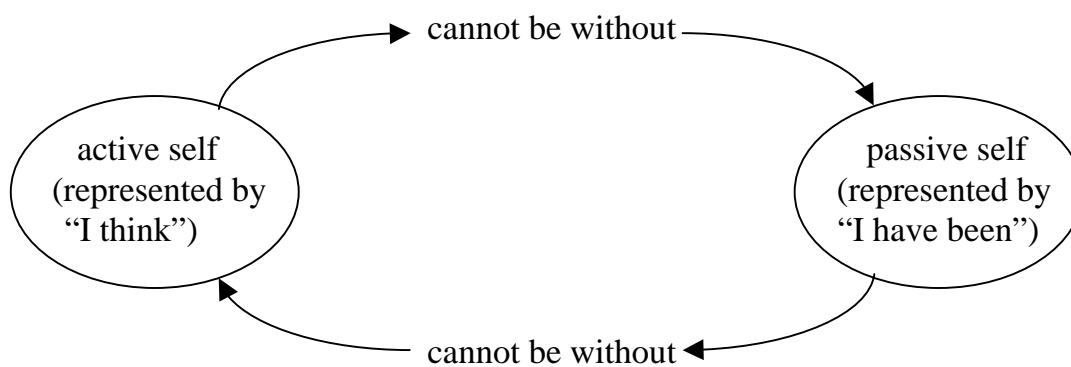


Figure 1.

However, there is more. The same highest principle or act which is responsible for the identity of the self also gives rise to the synthesis of all appearances.

The original and necessary consciousness of the identity of the self is thus at the same time a consciousness of an equally necessary unity of the synthesis of all

representation *I think*, must necessarily be capable of accompanying all our representations. It is in all acts of consciousness one and the same, and unaccompanied by it, no representation can exist *for me*.” (1787, p. 77). Notice that Meiklejohn eliminates the parenthesis and introduces its content into a new sentence.

¹¹ “Principle” should be understood here in the sense of the Ancient Greek *arche*, the ground on which something stands, pervading it, guiding it in its whole structure and essence (Heidegger, 1981, p. 30).

appearances according to concepts, that is, according to rules, which not only make them necessarily reproducible but also in so doing determine an object for their intuition...(Kant, 1781/87, p. A108).

Hence, the highest principle of apperception is also responsible for the determination and unity of each possible *object*. Let us see, more carefully, the relationship between the synthesis of appearances and the determination of an object.

According to Kant,

Appearances are the sole objects which can be given to us immediately... But these appearances are not things in themselves; they are only representations, which in turn have their object --an object which cannot itself be intuited by us, and which may, therefore, be named, the non-empirical, that is, transcendental object = x. (Kant, 1781/87, A109)

The “object” of a particular appearance is *that which* is appearing as different from the appearance itself. I perceive the appearance of a chair; and, according to Kant, that is all I can “see” of a chair. However, I *need* to refer that appearance to “something” which is appearing. This “something” (=x) is the “object.” Now, the fact that we, human beings, only have access to appearances, implies that the difference between two “things” lies in their “appearance” not in their “object.” Hence, although we refer each particular appearance to a “something” (=x) or “object”, which *is that which* appears but is not the appearance itself, the object (=x) cannot be a different object in each case. There is but one and the same pure concept of a transcendental object that “appears” in a manifold of appearances. Remember that this “general object” is, together with the identity of the self, a consequence of the action of the principle of apperception. Notice that both the unity of the self and the general object lack any content; they seem to be pure forms.

The uniqueness and sameness of the “object” is declared by Kant (in a text that appears immediately after our last quote), in the following way,

The pure concept of this transcendental object, which in reality throughout all our knowledge *is always one and the same*, is what can alone confer upon all our empirical concepts ... objective reality. (Kant, 1781/87, A109).

The source of any possible objectivity is thus subjective, for it lies in the highest principle of human knowledge. This being so, the highest principle of apperception brings about, in the same act, a twofold unity constituted by the unity of the “always-one-and-the-same-object” (which is “present” in any particular appearance) and the unity of the “I am” in each particular case.

Now, remember that the unity of the “I am” in each particular case (active self) is grounded on and grounds the synthesis of what-I-have-been along time

(passive self), so as to constitute an essential recursive unity. In the same way, as a sort of mirror image of the subjective side, the “object” that constitutes the unity of what-ever-is-the-case, is grounded and grounds the synthesis of a manifold of what-has-been-the-case along time (also constituting an essential recursive unity). This is a synthesis of what-has-not-been-my-self along time. *This temporary synthesis of the manifold of what-has-been-the-case and has-not-been-my-self along time is nothing but “the world”*.¹² Thus, “The world” is also an offspring from the highest principle of human reason; namely, the principle of apperception. *The heuristic and systemic character of the notion of “the world” (or what is the same, the world picture) follows from such a birth*. Furthermore, the essential recursive units {passive self <--> active self} and {the world <--> object} constitute an essential recursive unity: the unity of apperception. Hence, the unity of apperception both gives rise to and results from the essential recursive relationship between the pairs {passive self <--> active self} and {the world <--> object}. See Figure 2.

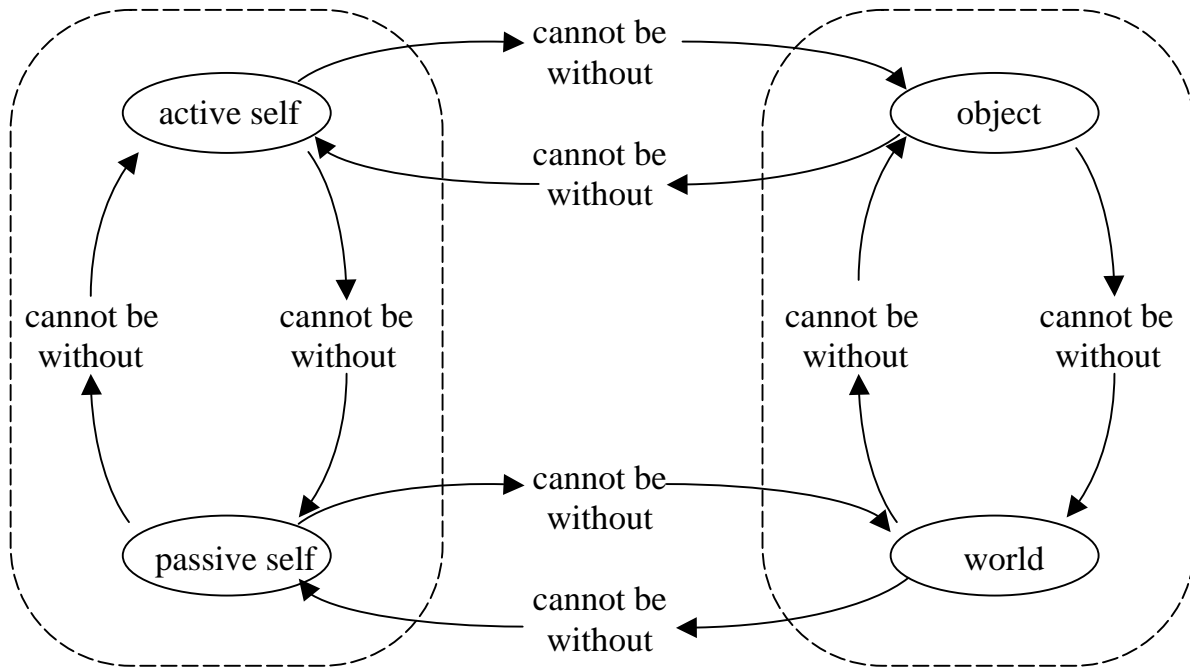


Figure 2.

¹² Notice that if Heidegger is right in that the “world picture” is a new notion of modernity then, this notion of the “self”, so essentially recursively dependent on the notion of the “world”, should also be a new notion of modernity. This point will be discussed later on.

However, in spite of this essential recursive relationship, the unity of apperception has a clear subjective bias in Kant's thinking. Why? What is the origin of such a bias? Why this sort of supremacy of the subjective over the objective? A reply to this question will be attempted after highlighting the inner relationship between systems thinking and the notion of "the world" or "world picture."

The intimate relationship between holistic thinking and the notion of "world picture" is now much clearer. To be sure, in Kant's thinking *the notion of "the world" is a consequence of the holistic character of reason.*¹³ Furthermore, as we will discuss in greater detail later on, the holistic or systemic character of reason (as we conceive it today) starts with modernity and is at the root of Modern philosophy.¹⁴

We have found an explanation for the foundation of the intimate relationship between systems thinking and the notion of "world picture." The subject matter of this Conference can thus be framed within such a foundation. We thus seem to have answered the fundamental question that was posed at the start of this paper. The notions of the world and of systems thinking do belong together, at least in Modern philosophy. The argument for this belonging together may be summarised as follows:

- 1) Reason, according to Kant, is "naturally" driven by a systems will to provide holistic explanations, "and to venture ...by means of [transcendental] ideas alone, to the utmost limits of all knowledge, and not to be satisfied save through the completion of its course in [the apprehension of] a self subsistent systematic whole." (Kant, 1781/87, B825).
- 2) One of the transcendental ideas by which reason performs its systemic or holistic task is that of "the world".
- 3) "The world", like the other two transcendental ideas ("man" and "God") are "heuristic" devices which serve the purpose of organising experience into transcendental wholes. Such holistic realms of experience are, in turn, represented by the (transcendental) idea which made them possible. Hence, transcendental ideas are both, holistic devices for organising experience and the representations of the resulting wholes.
- 4) The will to systems that drives reason must arise from the systemic character of reason itself. Such a systemic character demands that reason presents a fundamental unity which commands its functional diversity. Such a unity is the "principle of transcendental apperception."

¹³ We will later show that the converse also holds true, namely that holistic thinking is a consequence of the relationship between the modern notions of "the world" and of "human being."

¹⁴ Remember that, as commented before, according to Kant, the systemicity involved in the idea of holistic reason is twofold: On the one hand, holistic reason's endeavour is to provide a holistic account of the totality of Being. But, on the other hand, holistic reason itself must have a systemic nature. Kant's task was to systemically describe the systemic nature of holistic reason. For that purpose he had to account for the unity of the whole system of reason, which is associated with the principle of apperception.

5) The principle of transcendental apperception gives rise to, on the one hand, the essential recursive pair {"active self" <--> "object"} and, on the other hand, to the essential recursive pair {"passive (temporary) self" <--> "the world"}. Both pairs are generated by, and its essential recursive unity is represented by, the unity of apperception. (Here arises the question posed previously concerning the bias of the unity of apperception towards the subjective side in Kant's thinking).

6) The will to systems of reason (as conceived by Kant) is thus responsible for the whole structure of reason which is led by the principle of apperception and in which the notion of "the world" plays so an important role.

In addition to the unanswered question about the bias of the unity of apperception towards the subjective side in Kant's thinking, there is a sort of uneasiness, something missing, with regard to the intimate relationship between systems thinking and the notion of the world, specially if we pay heed to the last quote from Heidegger: If the notion of the world is so intimately associated with systems thinking and systems thinking is at the root of modern philosophy, the understanding we are trying to reach about the relationship between systems thinking and the notion of the world is intimately related to the historical conditions of the appearance of systems thinking in modern age. Hence, the question about the nature and, specially, the origin of the relationship between systems thinking and the notion of "world picture" is only partially answered as long as we do not ask for those historical conditions giving rise to the formation of systems thinking in modern age. The enquiry into those historical conditions might also shed some light on the subjective bias of the unity of apperception in Kant's thinking. But, before plunging into those historical conditions, a comment on the historical constitution of our present systems thinking and its own historical awareness is due.

The fundamental role of systems thinking in modern philosophy (and, as we will see later in the whole of modern thinking) sounds strange in view of a well-established discourse in our systems community. Systems thinking is presented as a brand new idea of this century, arisen from the brilliant mind of Von Bertalanffy and some other systems pioneers around the forties. See, for example, Bertalanffy (1968, p. 10), Ackoff (1974, pp. 10-15), Checkland (1981, p. 23, 75, 77, 92-93) and Flood and Jackson (1991, p. 3). Sometimes, it is presented as a new Renaissance of an aspect of Greek thinking. Why do we have this idea within the systems community if systems thinking is the hallmark of modern philosophy? Is not this historical oblivion a fundamental part of the very nature of our present systems thinking? The attempt to answer these questions, which seem fundamental for comprehending our present systems thinking, support the need to gain further understanding about the historical conditions for the constitution of systems thinking in modernity.

HISTORICAL CONDITIONS FOR THE CONSTITUTION OF MODERN SYSTEMS THINKING

The historical conditions for the “constitution of the idea of systems” and of the “will to systems” are, according to Heidegger, also the “essential preconditions for the genesis and existence of modern sciences.” (Heidegger, 1971, p. 36).¹⁵ However, such historical preconditions are not all given at the same time and in the same proportion; rather, they are developed with different degrees of clarity and power along the very history of modernity, so that they interweave among themselves within a very complex fabric. (p. 36). Among all of those historical preconditions, there is one of a crucial importance. This is the new distinction that modernity carves in the open ground of Being with regard to the way of experiencing that being we call nowadays “human being.” Let me explain.

We have found that in Kant’s thinking the systemic character of the notion of the world is derived from a subjective principle which is responsible for any sort of objectivity. The *locus* of the supreme holistic unity of reason, which is the same with the *whole* of Being, lies in the human mind. This implies a sort of precedence of the human mind over what is not the human mind. If the supreme holistic unity of reason is to merge with the whole of Being into a supreme unity (the absolute), why should one of the sides of such a unity --namely, human reason-- have some hierarchy over the other side --namely, the whole of what appears to the human mind? What we have discovered so far indicates that there must be an intimate connection between the precedence of the human mind over the realm of beings and both modern systems thinking (holistic reason) and the modern notion of world picture. In order to see more clearly such a connection, we must understand better the origin of the precedence of the subjective over the objective in modern thinking.

After the short incursion into Kant’s thought, we have already at hand a possible answer to this question of the precedence of the subjective over the objective: If what *appears* as beings are just that, “appearances” then, they are “*representations*”, obviously dependent on the representing device, namely, the human mind. To be sure, according to Kant and to the whole scientific and philosophical modern tradition, the *form* of phenomena is necessarily preconditioned by the human mind. In the case of Kant, such preconditioning takes place according to universal a priori forms of human knowledge. In later stages of modern thinking, those a priori forms are not regarded as universal as Kant supposed; but, in any case, it has been commonly accepted that there are some mental forms which, some how, precondition the shape of phenomena.

However, the former is only a partial and superficial answer to the question about the precedence of the human mind over what-is-not-the-human-mind. Such a

¹⁵ Observe that this judgment is even more striking for the common historical consciousness we have of ourselves within today’s systems community. Modern Science is regarded as “mechanicist” and “analytical” - -the opposite of systems thinking. How is it then possible that systems thinking and modern science be derived from the same historical conditions? This question will be addressed later on.

partial answer uncritically presupposes a particular relationship between the mind and what-is-not-the-mind. Furthermore, that relationship between mind and what-is-not-the-mind, in turn, presupposes a particular conception of the very being of both the mind and what is not the mind. Hence, the question concerning the origin of the precedence of the subjective over the objective --which, as we have seen, is intimately related to our modern notion of world picture, to its systemic character and to the whole of systems thinking in modern philosophy-- has to find its way through the question about the origin of the modern notions of human being and whatever is not a human being. In order to answer this question we need to make a short excursion into the origin of modern thought. There we will find that “human being” regarded as “knowing subject”, a being capable of *representing* what-ever-is-the-case, is, together with the notion of “world picture”, a conceptual necessity derived from the fundamental stand of modern thought.

The Cartesian *Cogito ergo sum*: The reduction of Existence to Knowing Subjects and Objects of Knowledge.

Indeed, the philosophical foundation of modern thought --both modern philosophy and modern science-- has its starting point and its fundamental principle in Descartes’ *cogito ergo sum*. “*I think, therefore I am*” was the Cartesian solution to the problem of finding a fundamental axiom, endowed with apodictic certainty, which could be the foundation of a new building of knowledge structured under an axiomatic-mathematical form.

Now, the Cartesian “*I think, therefore I am*” was saying, implicitly, something else of crucial importance for modern thinking, viz., *I am a being whose very substance is thinking*¹⁶. Furthermore, this “thinking” was preconceived by a particular way of thinking; namely, the sort of thinking of the newly born modern science which pivots around the notion of “representation”. Indeed, the central role that the notion of “representation” would play in the whole of modern thought was already clearly expressed in Galileo’s *Discorsi*. Galileo, in what might be taken as a preliminary form of Newton’s First Law, wrote, *mobile mente concipio amni secluso impedimento*, “*I think in my mind of something movable that is left to itself*” (quoted by Heidegger, 1967, p. 267). Why Galileo writes “*I think in my mind of something movable...*” instead of just “*I think of something movable...*”? Even simpler, why does he not just write “something movable”? This apparently redundant “thinking in the mind” is “representing.” The sort of “thinking” embedded in the Cartesian “*cogito*” is based on the idea of representation. By means of representation we acquire knowledge. Hence, *the Cartesian cogito defines the human being as a knowing subject*. A *knowing subject* is that who can *represent* in his mind what-ever-is-the-case. In this way, modern thought started its path by

¹⁶ One could ask, why is “thought” more fundamental to the essence of the human being than, say, feelings like love, hate, pity, or aesthetical sensibility?

reducing, on the one hand, human beings to “knowing subjects” and, on the other hand, thinking to the sort of thinking characteristic of the newly born natural science, i.e. *representational* thinking.

Since Descartes was to erect the whole building of knowledge on his *cogito ergo sum*, the rest of the building would be affected by this particular concept of human being. Indeed, the *cogito ergo sum* defines the mind (*cogito*), the representing device, as a substance totally separated from whatever the mind is to know. But whatever the mind can know is everything which is not the mind. Everything which is not the mind thus gains the ontological status of “object of knowledge”. *Object* originally meant *that which is put before or against* (Klein, 1967). “Object of knowledge” hence, means *that which is put before or against the knowing subject in order to be represented and thus known*. Then, what-ever-is-the-case becomes an “object of representation.” In this way, the Cartesian *cogito* operates a dramatic reduction on both the human being and what-ever-is-the-case. They become “knowing subject” and “object of representation” respectively.

Notice that the relationship between “knowing subject” and “object of representation” is such that subjectivity (and hence, the human mind) gains a special status. The first axiom declares the existence of the knowing subject. The rest of “what-ever-is-the-case” is conceived, as an object of representation, in terms of that being who represents (the knowing subject). To be sure, in Descartes’ times the word “*subjectum*” and “*objectum*” had different meanings from the current ones. *Subjectum*, derived from the Greek, *hypo-keimenon*, was “something lying before from out of itself, which, as such, simultaneously lies at the foundation of its fixed qualities and changing circumstances” (Heidegger, 1952a, p. 148). The knowing subject thus gains this status of a “ground lying at the foundation” of what-ever-is-the-case. In this way, the *cogito ergo sum* provides the *cogito* with an *unconditional* status; whereas whatever is not the *cogito*, namely, object of representation, is *conditioned* by the *cogito*.

The Cartesian “subjective” or “idealist” tradition is obviously conditioning Kant’s thinking. Now we can better understand the origin of the precedence of the human mind over what-is-not-the-human-mind and why the supreme unity that merges together human knowledge and what-ever-is-the-case lies in the human mind. We can thus also see better why, according to Kant, “the world” is a heuristic idea of holistic reason (arising from the will to systems) which organises experience into a unity which is to be the counterpart of the passive notion of the self. But, again, the question for the origin leaps into our way: why (what is the origin of) the Cartesian *cogito*? Why did Descartes have to start his reconstruction from the *cogito* so that the human being became into *subjectum* and what-is-not-the-*subjectum* became *objectum*? Before attempting a reply, a comment on the context in which those questions are meaningful is due.

The reader must have noticed that we seem to be giving a historical, non universal, status to the notion of “representation.” Why? Is not “representation” a universal fundamental necessity in any form of human thought and human action? Do we, human beings, not need to *represent* the reality “out there” in order to act upon it and gain knowledge about it? This is, to be sure, the doctrine of modern “dualism”. But, is it really a universal necessity? It is, indeed, a necessity only as long as we remain trapped within the way of experiencing beings and ourselves that belongs to modernity. But, how can we escape from that way of experiencing beings if it is determining whatever we can perceive and think? To be sure, a-way-of-experiencing-beings is *power* in an ontological sense. This *ontological power* is the deepest and most general notion of “power.” Being the deepest, it is, allow me the redundancy, the most powerful. However, a-way-of-experiencing-beings is also historical in an ontological sense. It changes through time. But it gives historical time its meaning. It is the condition of possibility of any historical account. More than that, it is the condition of possibility of this very discourse about “a-way-of-experiencing-being”. It gives form to facts in time, but its becoming depends on what occurs along time. A-way-of-experiencing-beings can thus be conceived as a *historical epoch*.¹⁷ It is this historical condition of a-way-of-experiencing-beings which, in spite of its power, opens the possibility of gaining some understanding about its own foundation. Indeed, if we have the privileged historical position of living the transition between two historical epochs, we have the opportunity to glimpse the contours of the ending epoch. Such a privileged historical condition allows the possibility to imagine other ontological interpretive contexts which could play the role of a background that highlights, always partially, the borders of the dying epoch. As I will argue later on, we are at present living at the edge of a historical epoch. To be sure, we are witnessing the end of an epoch where the modern notion of world picture and of human being are becoming rapidly meaningless with regard to their original meaning. However, in order to see this meaninglessness we must strive to see beyond both the foundations of the modern epoch and this blurred ending that we call postmodernity. Only from a contrasting background can we see our present --this estrange mist in which *we, as a historical society, are not being any more what we were and we are not being yet what we are going to be*. From this crack between epochs, we can attempt to imagine the contours of another way-of-experiencing-beings which be neither the modern one nor our postmodern one. Such a way-of-experiencing-beings would then serve the

¹⁷ According to Heidegger,

The history of Being means destiny of Being in whose sendings both the sending and the It which sends forth hold back with their self-manifestation. To hold back is, in Greek, *epoche*. Hence we speak of the epochs of the destiny of Being. Epoch does not mean here a span of time in occurrence, but rather the fundamental characteristic of sending, the actual holding-back of itself in favor of the discernibility of the gift, that is, of Being with regard to the grounding of beings. (Heidegger, 1969, p. 9).

purpose of a contrasting interpretive context over which we can pose again the question about the origin of the Cartesian *cogito* that was left unanswered before this last comment. Let us then attempt to outline that interpretive contrasting background in the following pages.¹⁸

Being and the Self in Greek Thinking

According to our Modern beliefs, this piece of rock is a material thing which exists independently of my existence, of your existence and of any other human being's existence. If we all die suddenly by the effect of a neutron or killing-people bomb, this stone will continue being there. Its existence is independent of our minds. Its being is a fixed being. It has been there and remains there unless another material being destroys it. On the contrary, my feeling of dislike before the idea of a neutron bomb disappears if I disappear. Furthermore, such a feeling will disappear after a moment when I begin to think of something else. In order to "keep it in my mind," to make it last, there must be some affective circumstances or a persistence of the will which holds it there; otherwise, it would vanish. Its existence depends on the continuity of my thinking about it. Its being is a fleeting being due to its mental nature. *Material beings, i.e. bodies, on the contrary, carry with themselves their endurance. The condition of remaining there belongs to them.*

All this seems quiet natural for us and also seems to match fairly well with the Cartesian start of modern thinking. Indeed, according to Descartes' writings, there were two types of beings: material beings and mental beings. What-ever-is-the-case was *either* material *or* mental. This "either - or" means that the realm of Being is split into two "substances" infinitely different from each other: mind (*res cogitans*) and matter (*res corporea*). This is what philosophers call "Cartesian dualism."

So far we feel at home. But how would things look if we did not split the realm of Being in such a drastic way? What would this stone be if I am not conditioned to think beforehand that it must be either material or mental? What would this stone be if I am not conditioned to think of myself as a knowing and acting subject which opposes it? On the other hand, how would I experience myself if there were not that a-priori dualistic opposition? Maybe, the stone would not be a fixed being lying there independent of us. Maybe its being would be nearer to the fleeting character of my feeling of anxiety before the idea of the neutron bomb.

Here, I must make a parenthetical warning: I do not mean to say that in the absence of dualism everything would be mental. That would mean falling in the trap of dualism, which considers that what-ever-is-the-case is *either* mental *or* material; hence, if it is not material, it is mental. This is the source of both solipsism and realism. The overcoming of dualism is as far from realism as it is from solipsism. Both positions arise from the *either - or* logic of dualism. In the same

¹⁸ The content of the first part of the following subtitle was presented before in (Fuenmayor, 1992)

order of ideas, the question whether what-ever-is-the-case is or is not independent of a knowing-acting subject is grounded on the a-priori exclusive split into mind and matter. Hence, the absence of dualism would imply that what-ever-is-the-case does not have to be a property *either* of the realm of matter *or* of the mind; it does not have to be *either* internal *or* external; it would just *be*. The question is, “How would it be? This is precisely what we were asking before this parenthetical warning.

Heidegger tells us that, among the Ancient Greeks, what-ever-is-the-case was a bringing-forth, a presence, an unconcealing which is grounded on concealing. What does Heidegger mean by this and what difference holds between this and our Modern conception?

I think that the Heideggerian idea of unconcealing-concealing can be more easily grasped in the language of interpretive systemology (Fuenmayor, 1991b and 1991c). If we renounce the dogma provided by dualism, we can ask, under a fresh look, how this stone, or what-ever-is-the-case, is possible? This stone is a distinction from what it is not. Just as in the figure-ground examples of the Gestalt school of psychology, the figure, what is being distinguished, cannot be without its ground. Its ground or scene is nothing particular, it is not a distinction, it is just what the distinction is not. If the ground would become a distinction, as we can do with the Gestalt figure-ground, the original distinction would disappear. The figure is thus what appears on the ground of that which does not appear. It is, coming back to Heidegger’s terms, what is brought forth to presence and hence unconcealed on the grounds of what is concealed. What is concealed thus becomes the possibility-ground for the distinction, for what is present.

Observe that a distinction, what-ever-is-the-case, is not a thing-in-itself; it is an act of appearing. Its endurance is not, like in dualism, given a-priori. Its endurance becomes a problem. Remember that on the contrary, according to our current dualist-realist idea of reality, material beings carry with themselves their endurance. The condition of remaining there belongs to them. This is why we, Modern people, are not amazed, not even surprised that, when I search in my pocket, I find *again* the “*same*” stone. This sameness or endurance was a problem for presocratic Greeks because they did not have the ready-made dualistic answer that we now have and which bars the way for the amazement before the mystery of *presence*. According to dualistic realism, the stone endures because it is independent of the situation in which it appears. If we are not trapped within dualism, everyday bringing-forth becomes a bursting open, a blossoming, before which we are amazed. This amazement was, precisely, the main source of Greek thinking.

Now, if what-ever-is-the-case is not any more an object that can be represented, but an act of appearing, “*my*” essence cannot be understood as that of the “knowing subject”, the subject who can represent the objects of the external world. So, one is compelled to ask, how would the self be experienced under the above interpretation about the ancient Greek way of experiencing beings?

There is a famous say of Protagoras which is usually quoted as “Man is the measure of all things.” It is frequently interpreted as reinforcing the Cartesian notion of the human subject (subject, in the sense of a “ground lying at the foundation”). The usual modern interpretation goes like this: if what-ever-is-the-case is always a representation that takes place in the mind (the representing device of the knowing subject), then the knowing subject is the “measure of all things.”

Nevertheless, according to Heidegger, this frequently accepted interpretation of Protagoras’ saying, fails to notice that the conception of human being in Descartes and Protagoras is essentially different, for they arise from radically different ways of experiencing beings. This difference is very difficult to see “because from long habituation we see Greek thinking through a modern humanistic interpretation...” Therefore, “it remains denied to us to ponder the Being that opened itself to Greek antiquity in such a way as to leave to it its uniqueness and its strangeness”. (Heidegger, 1952a, pp. 143-144). However, an effort can be made in order to shed some light on that difference:

A standard translation of Protagoras’ statement runs:

“Man is the measure of all things-alike of the being of things that are and of the not-being of things that are not.” (Cornford, quoted by the translator of Heidegger, 1952a, p. 144)

As commented before, “*man is the measure of all things*” is understandable in terms of our Modern conception. However, the rest of the saying sounds a bit odd. What is it meant by “*all things-alike*”? Why, after saying that “*man is the measure of all things*”, Protagoras adds, “*of the being of things*”? Is there a different meaning in the expressions, “... *of things*” and “... *of the being of things*”? But even more puzzling, why does Protagoras say, “... *of the being of things that are and of the not-being of things that are not*”? What does the “*not-being of things that are not*” mean? For modern and contemporary people, it sounds as galimatias meaning *nothing*. But there is more, there is an “*and*” which brings together “*the being of things that are*” with “*the not-being of things that are not*.” How can the “*being of what is*” be put together with that *nothingness* represented by the galimatic expression “*the not-being of something that is not*”? What is the meaning of this “togetherness” or “gathering” of “being” and “nothingness”?

Heidegger’s translation of Protagoras statement is as follows,

“Of all things (those, namely, that man has about him in customary use, and therefore constantly, *chremata chresthai*) the (particular) man is the measure, of those that presence, that they presence as they presence, but also of those to which it remains denied to presence, that they do not presence.” (Heidegger, 1952a, p. 144).

Plato's interpretation of Protagoras' statement is also translated by Heidegger (1952a) in order to reinforce his interpretation. Plato, wonders,

“Does he [Protagoras] not understand this somewhat as follows? Whatever at a given time anything shows itself to me as, of such aspect is it (also) for me; but whatever it shows itself to you as, such is it in turn for you. You are a man as much as I.” (Heidegger, 1952a, p. 144)

If you bear in mind the former explanation about a possible interpretation of the Greek way of experiencing beings (based on Interpretive Systemology's ontology), both Cornford's translation and Heidegger's interpretive account look more understandable.

The Greek *ego* is experienced as his dwelling in the boundary between concealing (not-Being, non-presence) and unconcealing (Being, presence). Witnessing of the mystery of presencing takes place within this dwelling. Presencing is the appearing and the endurance of the unconcealed (distinction) from out of the concealed. In Heidegger's words,

The *ego* carries within the horizon of the unconcealment that is meted out to it always as this particular unconcealment... Through its carrying in company to what presences, the belongingness of the I into the midst of what presences *is*. This belonging to what presences in the open fixes the boundaries between that which presences and that which absents itself. From out of these boundaries man receives and keeps safe the measure of that which presences and that which absents. (Heidegger, 1952a, p.145).

Here, *Measure (metron)* is understood more in the sense of “restriction.” Hence, “man is the measure of all things...”, does not mean that man, “from out of some detached I-ness, sets forth the measure to which everything that is, in its Being, must accommodate itself.” (pp. 145-146). Rather it means that,

[man] is *metron* (measure) in that he accepts restriction to the horizon of unconcealment that is limited after the manner of the I; and he consequently acknowledges the concealedness of what is and the insusceptibility of the latter's presencing or absencing to any decision, and to a like degree acknowledges the insusceptibility to decision of the visible aspect of that which endures as present. (Heidegger, 1952a, p. 146).

But there is something fundamental in Plato's interpretation to which Heidegger does not refer explicitly: At the end of Plato's quotation, one can read, “...but whatever it shows itself to you as, such is it in turn for you. You are a man as much as I.” What does it mean? What is the relationship between this last part of Plato's quote and the previous idea about the dwelling in the boundary between concealing and unconcealing?

The essential dwelling that defines the essence of man provides the basis for witnessing the unconcealed from out of the concealed. This witnessing, which springs from that essential dwelling as one of its particular forms, is such that, in witnessing of the-unconcealed-from-out-of-the-concealed is *also* always ready to witness the witness it-self (or rather, *my-self*). Witnessing, beyond mere dwelling, which includes the appearing of a *self*, can only take place in so far as there is other-self (*alter ego*). Other-self is he/she who can be witnessed as being a witness of both the mystery of unconcealing from out of the concealing and of *my* being a witness of, on the one hand, that *same* mystery and, on the other, of that other (other-self) witness. In graphic terms, the above might look simpler. See Figure 3.

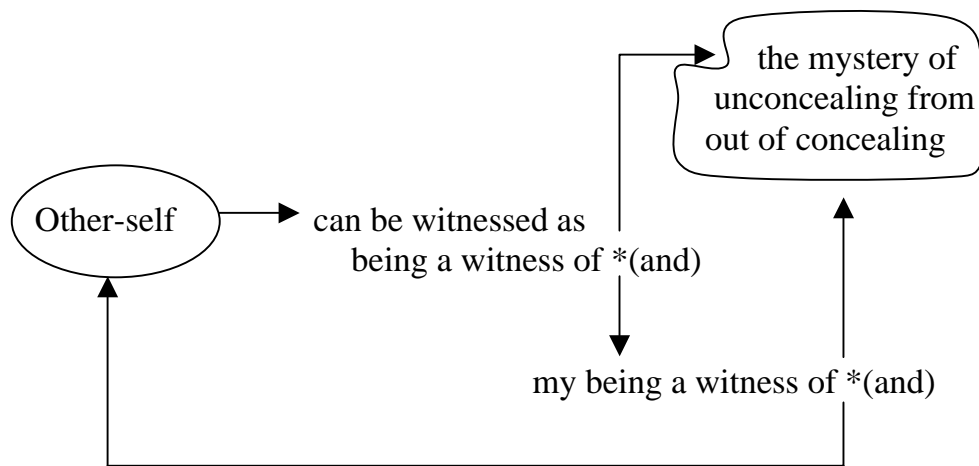


Figure 3

In other words, without the other-self there would not be my-self. Without my-self there would not be other-self. Without the essential recursive relationship between my-self and the other-self there would not be that witnessing beyond mere dwelling in the boundary between concealment and unconcealment, which brings about presence. In short, *the other-self is my being-co-present*.

The Spanish poet Miguel Hernandez writes it brilliantly in simple and naive terms,

*The world is as it appears
before my look
and before yours which is*

*the edge of mine*¹⁹
(My non-literal translation)

Maybe, within the context provided by the Greek way of experiencing beings, the original meaning of word “world” in the English language might be more understandable. As suggested at the beginning of this writing, maybe “world” meant “the temporary openness toward which human being is essentially and continuously thrown”.

The above interpretive context about a would-be ancient Greek way-of-experiencing-beings has provided the possibility of an interpretation of the ancient Greek notion of *ego*, essentially different from the Cartesian knowing-subject. From the perspective offered by that interpretation we can see better the contours of the modern conception of knowing-subject which, in turn, should help us understand the modern notion of “world” as “world picture.”

First, observe that the *ego* conceived according to that would-be ancient Greek way of experiencing beings, is quite different from the Cartesian “knowing subject” embedded in Modern dualism. According to the ancient Greek way, “the belongingness of the I into the midst of what presences... fixes the boundaries between that which presences and that which absents itself.” (Heidegger, 1952a, p. 145). Within such belongingness the presencing of the I is a being-co-present with the other. According to Modern dualism, what is presented and thus *given* to the knowing subject is what is already there and which can be re-presented by the knowing subject. This being-already-there of what is presented means both that it is enduring in-itself and that it is independent of the Knowing subject. Each “knowing subject” is endowed with the faculty of re-presenting (and thinking about those representations) a given external reality. The re-presentation (appearance) of what is presented is, however, the only thing that the knowing subject can have (perceive) of what is presented (and given). Hence, what is there outside us cannot be known in-itself, beyond our representation. In consequence, although what is presented is independent of the knowing subject, what is re-presented (the perception) is necessarily conditioned by the *cogito*. This is why the human being becomes *subjectum* (ground lying at the foundation) of what is re-presented. As different from the Greek notion of *ego*, each knowing subject, in its essential act of re-presenting, is independent of other knowing subjects and thus is de-socialised. This independence, together with that status of *subjectum*, conforms the modern *individuality* of man. When the essence of man becomes that of a “knowing

¹⁹ In Spanish,

“*El mundo es como aparece
ante mis cinco sentidos,
y ante los tuyos que son
las orillas de los míos*”.
(Miguel Hernandez)

subject”, the human being becomes primarily an abstract *individual* detached from his social meaning for others. Precisely the current phrase “social role” means that I am primarily an individual defined by some essential nature (subject of knowledge) and thereafter I can “play” a social “role” --as in the roles played in the theatre, or as a shirt that I wear and take off. On the contrary, for other traditional cultures (e.g. ancient Greek), I am, first of all, a carpenter or a peasant.

The modern notion of knowing subject is neatly depicted in a piece of writing of Russell by means of his interpretation of the notion of “monad” in Leibniz,

Leibniz thought that the universe consisted of monads, each of which was a little mind and each of which mirrored the universe. They did this mirroring with varying degrees of inexactness. (Russell, 1959, p. 17).

This “mirroring with varying degrees of inexactness” is nothing but re-presenting. Russell continues showing his agreement with Leibniz’s idea. However, in opposition to (his interpretation of) Leibniz, he adds,

It is only through the causal action of the outer world upon us that we reflect the world in so far as we do reflect it. (Russell, 1959, p. 17).

However, this statement is contradicted later by Russell, when our limitation to the realm of re-presentation is asserted.

What I maintain is that we *can* witness or observe what goes on in our heads, and that we cannot witness or observe anything else at all. (Russell, 1959, p. 19).

We have outlined an interpretive context which pretends to account for a would-be ancient Greek way of experiencing beings and experiencing the self. This interpretive context has served the purpose of a contrasting background for Modern dualism. Now we can comeback to the point where we were before outlining this contrasting interpretive context.

We had stated that the question concerning the origin of the precedence of the subjective over the objective --which, as we have seen, is intimately related to our modern notion of world picture, to its systemic character and to the whole of systems thinking in modern philosophy-- has to find its way through the question about the origin of the modern notions of human being and what are not human beings. Such modern notions were explored, through Kant, down to the dawn of Modern philosophy in the Cartesian *cogito*. Once in Cartesian territory, some questions were left unanswered: “Why (what is the origin of) the Cartesian *cogito*?”, “Why did Descartes have to start his reconstruction from the *cogito* so that the human being becomes *subjectum* and what-is-not-the-*subjectum* becomes *objectum*?” Only in that origin can we find the origin of the notion of “world picture”, its systemic character and systems thinking as a historical phenomenon.

FREEDOM AT THE ORIGIN OF MODERN THINKING.

According to Heidegger,

The superiority of a *sub-jectum* (as a ground lying at the foundation) that is preeminent because it is in an essential respect unconditional arises out of the claim of man to a *fundamentum absolutum inconcussum veritas* (self-supported, unshakable foundation of truth, in the sense of certainty). (Heidegger, 1952a, p. 148)

Immediately, Heidegger asks again, “*Why and how does this claim acquire its decisive authority?*” The answer is categorical:

The claim originates in that emancipation of man in which he frees himself from obligation to Christian revelational truth and Church doctrine to a legislating for himself that takes its stand upon itself. (Heidegger, 1952a, p. 148).

Let us examine carefully this quotation.

The Will to Emancipation from Church Domination

In medieval times, truth was revelational truth. The divine order was revealed (always partially) to human beings through the Church. Church priests interpret the sacred writings and other divine signs so the rest of mortals could know how to live according to the divine order. This hermeneutical role of the Church was a source of *visible* power that dictated how to think, how to feel and, hence, how to behave, all within a coherent whole.

Renaissance thinkers like Descartes felt the epochal call for liberation *from* domination of the Church over the men’s behaviour. It was a call for *autonomy*, so that each human being could decide his own behaviour. Since the imperatives that regulated human action were based on revelational truth, the emancipatory will of Modernity required the creation of another source of truth from which human behaviour could be ruled. This is why Modern thinkers felt the call for a “liberation *from* obligation to Christian revelational truth and Church doctrine.” Here, a parenthetical comment concerning the notions of freedom and liberation is due:

A Parenthetical Note concerning Freedom: Freedom *from* X to Y

Freedom is founded on restriction. If there were no restrictions, there would not be freedom. If one could manage to get rid of all sort of restrictions (physical and mental) one would be literally immobilised, both physically and mentally. This would imply, not only total lack of freedom, but, also, total death. *The condition for the possibility of freedom is thus being bound by something obligatory.* Now then, notice that we have been saying “...liberation *from*...” But, if freedom is founded on restriction, liberation is not just “liberation *from* something”, but liberation *from* something *to* something else. When we free ourself from being bound by something

obligatory, we do not just fall into a boundless space of total freedom after liberation.²⁰ We free ourselves from being bound by something obligatory, say **X**, in order to be bound by something else, say **Y**. Although **Y**, as a new restriction, is also obligatory, this obligatoriness tends to be hidden, so that liberation looks more definitive. We must, therefore, bear in mind that “liberation from **X**” is always a “liberation from **X** to **Y**”; where **X** should be different from **Y**; but, both are obligatory.

Legislation from Revelational Truth to a new Legislation for Man that takes its Stand upon Man

Before the former parenthetical comment, we were saying that Renaissance thinkers attempted liberation *from* revelational truth in order to be freed from domination of the Church over the behaviour of men. Now we are compelled to ask: What is the **Y** of this liberation? In other words, *to which new source of truth should liberation (from obligation to Christian revelational truth and Church doctrine) conduce?* This new source of truth had to be such that it allowed each human being to decide his own behaviour. However, it could not be arbitrary, it had to be somehow obligatory so that it could be endowed by certainty. But such an obligatory character seems to jeopardise the whole endeavour of liberation.

If the source of truth were external to the human being, his behaviour would have been dictated by that new source and not by himself. Therefore, the new obligatory bound, i.e. the new source of truth, had to come from that very being which felt the urge of liberation; it could not come from outside. But it still had to be obligatory and not arbitrary, it had to be a new source of certainty. This is why Heidegger writes (in the former quote): “...[man] frees himself *from ... to* a legislating for himself that takes its stand upon itself.”

The Theoretical and the Practical Constitutives of the new Legislation

Indeed, the new source of truth should become the basis for a new legislation that could, on the one hand, as a source of truth, provide a criterion for demarcation between what is true and what is not true. Also, on the other hand, it should, as a consequence, provide a criterion for demarcation between good and bad, so that human behaviour could be an act of autonomy. The first criterion for demarcation (between true and not true --between what is and what is not the case) is a “theoretical” criterion. This theoretical criterion had to be derived from a theoretical construct (an ontology and an epistemology). The second criterion for demarcation (between bad and good --between what ought to be done and what ought not to be done) is a “practical” one.²¹ The theoretical construct (with its criterion for demarcation between true and untrue) was regarded as both the basis for and the

²⁰ Notice that “total freedom” is equivalent to the total absence of freedom.

²¹ The names “theoretical” and “practical” used within this context are borrowed from Kant

means for the final practical aim: *human autonomy*. Hence, the structure defined by the theoretical and practical constructs and their mutual relationships could be conceived as a plan for liberation. For such a purpose, the theoretical construct had to be informed from the start by human autonomy, for, otherwise, revelational truth --or in its place any other external source of truth-- would obliterate such autonomy. According to Heidegger,

[liberation *from* the certainty provided by revelational truth] had to be intrinsically a freeing *to* a certainty in which man makes secure for himself the true as the known of his own knowing... Such a thing could happen, however, only in so far as man decided, by himself and for himself, what for him should be “knowable” and what knowing and the making secure of the known, i.e., certainty, should mean. (Heidegger, 1952a, p. 148).

This was, precisely the original task for Descartes. He had to provide that “foundation for the freeing of man to freedom as the self-determination that is certain of itself.” (Heidegger, 1952a, p. 148). That very foundation for the freeing of man had to comply to certain very demanding conditions:

Requirements for the new Legislation

- 1) The only way to secure man’s freedom was to make sure that certainty does not come from out of the foundation itself but from within-itself. *That is, the new foundation had to be self-certain.*
- 2) *The equivalency between the foundation’s self-certainty and human freedom required that the foundation itself be equivalent to human essence.* Notice that the will to autonomy, within this historical context of reaction to Church domination, is determining the essence of a being posed as “what in each case is *my* essence.” *Hence, in the first place, the will to freedom is not simply a consequence of the fact that human essence is the knowing subject; rather, the notion of “knowing subject” and its central role into what is human is a consequence of the will to freedom.* However, the new notion of “knowing subject” is also recursively giving form to the modern notion of freedom.
- 3) *Since it is a foundation for truth, it had to be such that, while being self-certain, could be the criterion, the measure, of any other thing that could be certain.* This means that any other thing that could be certain must be such from out of itself (not from within itself) and in close dependency to the only thing that can be self-certain, i.e., the new essence of the emancipating human being. But this also means that from this point onwards (within modern thinking) what-ever-is-the-case is classified into two totally different realms of beings: the very being who is self-certain

(human being's essence) and everything else that is not self-certain and can only be certain in relation to the self-certain being.

The Creation of the Knowing Subject and of the Object of Knowledge

We can now see how these conditions imposed on the new foundation for the freeing of man were pointing to the creation of two new beings: the “knowing subject” and the “object of knowledge.” On the one hand, man's essence becomes *subjectum* (the *fundamentum*, the ground lying at the foundation of everything else), the “measure of all things” (in a very different sense and context from Protagoras' saying). On the other hand, everything that is not *subjectum* (with the exception of God, of course) becomes *objectum*, i.e., that which is put against the *subjectum* in order to be measured (to determine its certainty). To “know” means then to measure according to the new standard: “the measure of all things.” In turn, to measure means to re-present what is presented onto the standard of measurement. “Re-presented” is thus the status of the object of knowledge. “Re-presented” means presented again, projected, onto the standard. Thus knowledge becomes representation. What-ever-is-the-case, which is not “my self”, becomes object of representation. As “object”, it is not any more the ancient Greek act of presencing.

The above conditions imposed on the new foundation for the freeing of man were brilliantly comprised by Descartes within the fundamental and first axiom of modern thinking: *cogito ergo sum*. Such an axiom represents the self-certainty that would constitute the basis of the new theoretical construct for a new non-revelational truth. According to Heidegger, this “something certain” embodied in the *ego cogito (ergo) sum*,

is a principle that declares that simultaneously (conjointly and lasting an equal length of time) with man's thinking, man himself is indubitably co-present, which means now is given to himself. Thinking is representing, setting-before, is a representing relation to what is represented. (Heidegger, 1952a, p. 149).

No wonder why the famous Cartesian *cogito ergo sum* has been called the birth-cry of Modernity. But it is much more than the birth-cry of an “historical epoch” in the usual sense given to this concept. It is the birth-cry of a new way of disposing, classifying and giving meaning to what presences. New distinctions were made (new beings were created), new meanings were imposed to all names. It was, metaphorically speaking, the birth of a new “*constellation*” of the realm of beings that pivoted around two new centres of gravity: the “subject of knowledge” that became the new essence of man, and the “object of knowledge” that became the new essence of what-ever-is-the-case (which now is declared as opposed and different from man).²²

²² The new modern constellation is an onto-epistemology that could bear the generic name of “dualism.” Modern philosophy, modern science and modern technology are originally built on the basis provided by the

“World Picture” and Man: The Monozygotic Offsprings of Modernity

Now, after inquiring into the historical origin of dualism and of the supremacy of the *subjectum* within dualism, we can understand better Heidegger’s assertion that there is not such thing as (say) a medieval world picture, for “the fact that the world becomes picture at all is what distinguishes the essence of the modern age.” We can also see better how the intimate relationship between “world picture” and systems thinking is at the base of the modern origin of the notion of “world picture.” In the words of Heidegger,

Where the world becomes picture, what is, in its entirety, is juxtaposed as that for which man is prepared and which, correspondingly, he therefore intends to bring before himself and have before himself, and consequently intends in a decisive sense to set in place before himself. Hence world picture, when understood essentially, does not mean a picture of the world but the world conceived and grasped as a picture. What is, in its entirety, is now taken in such a way that it first is in being and only is in being to the extent that it is set up by man, who represents and sets forth. Wherever we have the world picture, an essential decision takes place regarding what is, in its entirety. The Being of whatever is, is sought and found in the representedness of the latter. (Heidegger, 1952a, pp. 129-130)

The notion of the “world”, in the sense of “world picture”, and of “man”, conceived as the subject of knowledge, are the double offspring of the same parturition --Modernity. However both offsprings, being monozygotic, are not twins at all. On the contrary, they are the totally different opposite sides of Being. And here, as we will see bellow, the whole constellation of Modernity hides a profound contradiction in its very core.

Some of the new *constellation’s* distinctions and arrangements will undermine both the fundamental force that created the whole *constellation* and the *constellation* itself. One possible way to make our entrance within the underlying contradiction is through one of the fundamental aspects of the *constellation*, namely, systems thinking. For that purpose we must first revisit the origin of systems thinking within Modernity.

Posing again the Question of the Origin of Systems Thinking within Modernity

Remember that, according to Kant, “Reason is impelled by a tendency of its nature to go out beyond the field of its empirical employment,...and not to be satisfied save through the completion of its course in [the apprehension of] a self subsistent systematic whole.” (Kant, 1781/87, B825). This “tendency” is nothing

new constellation. Obviously modern science and, later, modern technology are blind to that basis. On the other hand modern philosophy endeavours is to catch a sight of the constellation over which it stands and which provides its meaning and force. Of course, such an endeavour can never be totally realised because it would mean a total bent onto itself --like the snake eating itself by the tale-- which is not possible for thinking.

more than the “will to systems” of reason. The highest level of (the system of) human reason, namely, holistic reason, is directly driven by the will to systems. A summary of Kant’s idea about the relationship between holistic reason and the transcendental ideas (among which there was “the world”) was presented before. However, then we did not discuss why Kant thought that the will to systems is a “natural” tendency of reason. Now we are in a position to better understand how the will to systems, far from being a “universal” tendency of human reason (as Kant seemed to think), is just another feature of the new *constellation* of Modernity driven by the will to liberation. Indeed, according to Heidegger, *systems thinking*, as we call it nowadays,

starts from the moment in which the historical existence of man reaches, in the Western culture, new conditions whose unitary effect brings about what we call Modern epoch... To pretend to find systems [thinking] in history before this epoch is a clear sign of a misunderstanding of the concept of systems [thinking] (Heidegger, 1971, p. 35, my translation)

Then, the question is how does the will to systems come into being within the *constellation* of Modernity? Obviously this is a crucial question if one wants to understand the origin, limits and possibilities --not only of that systems thinking belonging to Modernity-- but of our present day would-be systems thinking. I say “*would-be* systems thinking because, as I hope to show later on, it is in great danger of being no more than a totally distorted echo of that other systems thinking at the root of Modernity.

In the following, an answer to the question about the origin of modern systems thinking is outlined.

Knowledge conceived as Synthesis: The Root of Systems Thinking within the Modern Constellation

Due to the very structuring of the modern *constellation* of the realm of beings (around its two centres of gravity), a fundamental relationship of *many to one* is established. *The act of representing requires that the manifold of what-ever-is-the-case be related to the singularity of that being which becomes the self-certain foundation (subjectum).* This fundamental relationship of *many to one* that governs any form of *knowledge* is *synthesis* in its general form. Kant, with whom the concepts related to the new “*constellation*” of Modernity reach maturity, clearly saw the fundamental role of *synthesis* in human knowledge. The singularity of the self-certain foundation is the *transcendental unity of apperception*. All knowledge is thus marked by a transcendental synthesis in relation to this supreme unity. And here --if we remember what we have found concerning Kant’s holistic reason and its relationship with the transcendental unity of apperception and with the notion of “the world”-- we can finally understand the necessary insertion of systems thinking

within the modern *constellation*. Indeed, knowledge is the fundamental relation that defines the dualist structure (the two centres of gravity) of the modern *constellation*. But, as already argued, due to this very dualist structure, knowledge has to be characterised by synthesis.

Modern philosophy has as its task the design of a system, moved by a will to systems, which could account for how the highest subjective holistic unity of *conscientia* (apperception) merge with the whole of what-ever-is-the-case into the whole of Being. *The will to systems is nothing but the will to construct the self-certain foundation for liberation. Liberation can not take place unless everything is set before the unity of the subjectum and hence, apprehended by it.* Only thus the order of things could arise from the liberating being so that liberation could be reached. Under these circumstances, the order of things is, has to be, a systemic order. *Systems thinking* (the will to systems and the constructed systems) *is thus a necessity for the modern plan for liberation.* In this way, systems thinking, contrary to what is common belief in our present systems community, was the hallmark of modern thinking. Systems thinking as we know it today cannot be understood if this historical origin is not understood. This understanding, however, reveals a profound contradiction between systems thinking and the *constellation* that provides its meaning. Let us see why:

THE CONTRADICTION BETWEEN SYSTEMS THINKING AND THE CONSTELLATION THAT PROVIDES ITS MEANING

Remember that the new *constellation* of the realm of beings is both a result and a conditioner of the plan for liberation. Within this recursion, systems thinking is a consequence of the fundamental dualism of the new *constellation* and a conditioner of its becoming along modern thinking. Now, paradoxically enough, as we have shown elsewhere (Fuenmayor, 1991a, 1991b and 1991c) the fundamental problem of systems thinking --to account for the holistic character of what-ever-is-the-case-- cannot be solved under a dualist onto-epistemology. Such a contradiction was felt by Kant through his attempt to take the will to systems to its “utmost limits”; i.e. to comprehending the supreme holistic unity where the whole of reason and the whole of Being merge together. We can now see with greater clarity that such a task had a major obstacle in its way: *to overcome its very basis, namely, dualism.* The infinite difference between *subjectum* and *objectum* established in the Cartesian tradition made impossible the task of rendering comprehensible the supreme holistic unity of Being. In point of fact, Kant made all sorts of efforts to overcome the burden of Cartesian dualism. The dialectical (essentially recursive) complexity that was beginning to emerge from Kant’s thinking (and which we interpreted before in the language of Interpretive Systemology --see Figure 2) was a clear sign of his attempt to overcome dualism in order to satisfy the will to systems and hence, the will to liberation. He certainly got rid of the overwhelming simplicity

of dualism, but he could not make a total jump out of it for, as we have seen, both the driving force of his thinking (the will to emancipation channelled through systems thinking) and his very notion of knowledge (pivoted around the idea of representation) were grounded on dualism.

The point is that, *in spite of the fundamental logical contradiction between systems thinking and dualism, now we are discover that modern systems thinking is an historical result of dualism* --what an irony! As such, it seems that if we switch to another onto-epistemological basis (another *constellation*), which is not logically contradictory with systems thinking (as we have attempted to do within Interpretive Systemology), the latter would loose its historical meaning and, hence, its will.

To be sure, systems thinking is modern liberating thinking; it is the force that animates the will to autonomy as conceived within Modernity. The will to autonomy is the will of man to use his holistic reason (systems thinking) in order to decide by himself on his actions. Notice that autonomy, so defined, is not simply the possibility of gaining an *arbitrary* power for decision-making. What autonomy gains, in the first place, is the *right, will and ability to use reason* in order to make decisions. As already explained, such a “reason” is historically constituted on the basis of the dualist *constellation* of Modernity. *Would not then, the dissolution of the logical contradiction between dualism and systems thinking end with the will to freedom to which such thinking is indebted?* We must comeback and revise the *constellation* of Modernity in order to comprehend better this paradox.

The Detachment of Feelings and Facts from the living-situation

According to Descartes, the *cogito* is also the *fundamentum* of other human attributes, namely the “passions of the soul”: emotions, feelings, moods, and, from XIX century onwards, the so called “values.” (Descartes, 1649). This means that, within the modern *constellation*, all sort of “feelings” belong *exclusively* to the new conceived man whose essence is that of the “knowing subject.” Feelings are thus distinguished, dissected and detached from the “living-situation” where they belong. From being an inseparable constituent of the living-situation they become a property of the mind, thus obtaining a new ontological status: “mental” beings. Once such a dissection is performed on the living-situation so that everything mental is extracted out of it, the unanimated stuff that is left are “facts” and “things.” Facts and things, whose being is defined in terms of its belonging to the “object of knowledge”, are then created following a similar logic to the above described concerning mental beings. Matter in its movement along the time-space grid is thus also detached from the living-situation. Facts and things are what-ever-is-the-case-which-is-not-mental. Mental beings are what-ever-is-the-case-which-is-not-material. On their part, time and space also gain a new ontological status.²³

²³ Some of the consequences of dualism mentioned here can be seen in greater detail in Fuenmayor (1991a).

The detachment and creation of “feelings” as a separated being gave rise, from nineteenth-century onwards, to the creation of another ghostlike being: “values” (ethical and aesthetical).²⁴ Obviously, “values” had to belong to the general sphere of feelings and emotions. Indeed, our modern idea of “value” has its logical root meaning in the separation between “fact” and “value.” If there were not this drastic and radical separation between fact and value --as it can be the case in other cultures-- there would not be such things as “values” (as we conceive them). In some other (traditional) culture based on a different *constellation* of the realm of beings (where dualism does not dominate) the bad and good, the beautiful and the ugly are constitutive of what-ever-is-the-case. What-ever-is-the-case might be more or less “indifferent” but that does not mean that there are “values” and “facts” as separated beings. This separation between *value* and *fact* --a fundamental principle of the new *constellation*-- is, as we will see shortly, at the root of the failure of the whole project of Modernity, namely, the project of constructing a theoretical and practical foundation for human autonomy.

The detachment of feelings and facts (and later of values and facts) from the living situation brought about by the fundamental dualism {*subjectum - objectum*} wipes out the richness and *wholeness* of the living-situation. The holistic character of what-ever-is-the-case is nothing but its transcendental *sense*. Obviously *sense* can be found neither in the things-in-themselves that are “facts” and “things” nor in those new ghostlike beings (feelings, emotions, etc.) that belong solely to the human mind.²⁵ This is why holistic (systems) thinking cannot logically take place under a dualist *constellation* of the realm of beings. As commented before, the logical opposition between systems thinking and dualism is itself contradictory with the historical origin of systems thinking in Modernity. Furthermore, such a contradiction is, as we show in the following, embedded in a fundamental contradiction between, on the one hand, the structure and constitution of the new *constellation* of Modernity and on the other hand, the creating and driving force of such a *constellation*, namely, the will to liberation.

Revisiting Kant: The Practical Interest at the Origin of Modern Systems Thinking

Remember that the origin of the whole new *constellation* is the will to liberation from Church domination. But Church domination is exercised by means

²⁴ According to Heidegger,

It was in the nineteenth century that talk of values became current and thinking in terms of values became customary... We speak of the values of life, of cultural values, of eternal values, of the hierarchy of values, of spiritual values, which we believe we find in the ancients, for example... We hold science to be value-free and relegate the making of value judgments to the sphere of world views. Value and the valuable become the positivistic substitute for the metaphysical. (Heidegger, 1952b, pp. 70-71).

²⁵ This point has been extensively discussed in Fuenmayor, 1991a, 1991b and 1991c.

of revelational truth. This is why the problem of designing a theoretical construct that could give rise to a non-revelational truth was fundamental for the liberating process. Just as revelational truth was itself a legislation that dictated what is good and what is bad so that man would act according to the good (for the salvation of the soul), the modern theoretical construct (an onto-epistemology) should finally lead to norms for moral behaviour. These new norms would arise from the autonomy of man. All this can be seen clearly again in Kant's work.

In an extraordinary short piece of writing called "*Was ist Aufklärung?*" (Kant, 1784, p. 85), Kant defines the Enlightenment, the heart of Modernity, in a very particular way. Enlightenment is an *ethos* (a fundamental living attitude or disposition towards what-ever-is-the-case). Furthermore, it is a negative *ethos*. Enlightenment is, according to Kant, "*man's release from his self incurred tutelage.*" In turn, "tutelage" is defined as "*man's inability to make use of his reason without direction from another.*" This "tutelage" is "self incurred" because "*its cause lies not in lack of reason but in lack of resolution and courage to use it without direction from another.*" This "resolution and courage" to use reason is the will to autonomy.²⁶ Enlightenment is thus clearly defined in terms of a "will" to fight against something --against the tutelage of some other rational order that does not arise from man's own use of reason. The motto of the Enlightenment, says Kant, is "*Sapere aude!*" (dare to know!). And *sapere aude* means, according to Kant, nothing but "*Have the courage to use your own reason!*"²⁷ Hence, as stated before quoting Kant, the norms of (moral) behaviour should arise from a new self-imposed, autonomous, tutelage: that of a universal (practical) reason which could provide the imperatives ruling man's actions.

The critical foundation of practical reason was the final aim of Kant's self-appointed task. The problem for Kant and for other eighteenth-century philosophers was to find a universal rational basis for their moral beliefs. This, together with the essential need of systems thinking and of the transcendental (systemic) ideas within the whole project of the Enlightenment, can be clearly seen in the first paragraph of a passage of the *Critique of Pure Reason* entitled "The Ultimate End of the Pure Employment of our Reason" (partially quoted before):

Reason is impelled by a tendency of its nature to go out beyond the field of its empirical employment, and to venture in a pure employment, by means of [transcendental] ideas alone, to the utmost limits of all knowledge, and not to be satisfied save through the completion of its course in [the apprehension of] a self

²⁶ Remember that reason at the service of the will to autonomy is systems reason.

²⁷ The whole paragraph with which Kant start his short work is as follows:

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. *Sapere aude!* "Have courage to use your own reason!" -- that is the motto of enlightenment. (Kant, 1784, p. 85).

subsistent systematic whole. Is this endeavour the outcome merely of the speculative interest of reason? *Must we not rather regard it as having its source exclusively in the practical interest of reason?* (Kant, 1781/87, B825, my italics)

Systems thinking (holistic reason) is the result and the means to attain the practical interest of reason; namely the foundation of a morality through the constitution of a new source of and a new criterion for truth (an onto-epistemology).

World Picture and Humanity

The corner stone of the rational foundation of morality was, according to Kant, the famous “categorical imperative”, the supreme principle of moral decision-taking. Such a principle was the same principle of the will to autonomy. A section of “Grounding for the Metaphysics of Morals” entitled: “*Autonomy of the Will as the Supreme Principle of Morality*” begins by defining the sameness in which autonomy of the will and the supreme principle of moral decision-taking merge together:

Autonomy of the will is the property that the will has of being a law to itself (independently of any property of the objects of volition). The principle of autonomy is this: *Always choose in such a way that in the same volition the maxims of the choice are at the same time present as universal law.* (Kant, 1785, p. 44, my italics).

This “practical rule” is the “categorical imperative” of morality. It is the rational principle of universal human justice and therefore, the genuine source of the dignity of humanity:

And the dignity of humanity consists just in its capacity to legislate universal law, though with the condition of humanity’s being at the same time itself subject to this very same legislation. (Kant, 1785, p. 44).

Humanity as the whole of what is human has as its constitutive principle the autonomy of the will that necessarily blossoms into the supreme principle of morality. The categorical imperative leads to justice. Equal opportunities for all is the precondition of justice. Care for others moves the will to justice.

The “world picture” is inseparable from this conception of humanity. The world is the setting of humanity, of this “humanity” based on justice and care for all other human beings.

The Modern Meaning of “Addressing Global Issues”

“Addressing global issues”, if understood according to the modern meaning of the phrase, means “thinking about how to realise the ideal of humanity.” This, in turn, means thinking and caring about bringing justice all around the world. “Addressing global issues” cannot then be reduced to taking care of global

ecological problems, like pollution; it must, if it is to maintain its original modern meaning, address the problem of justice and human rights. Within the modern *constellation*, all this thinking about the world, humanity and global issues cannot be but systemic. We can thus see the intimate relationship between systems thinking, the new essence of man, the world picture, humanity, morality and justice. *Modern systems thinking is meaningless without the modern ideal of a (fair) "humanity"*. Therefore, from a modern perspective, "addressing (systemically) global issues" means addressing issues of global justice; e.g. relationships between developed and underdeveloped countries, racial discrimination, the so called "new international order", etc.

Nevertheless, if, as we were saying before, the project of the Enlightenment failed, our present meaning of "addressing global issues" might be just a fossil sentence coming from a failed project. Also, and maybe more important for our systems community, the idea of systems thinking and its driving will to systems may also be meaningless in our present historical setting. In order to better understand these issues, we need to get closer to the idea of the failure of the Enlightenment project and the origin of such a failure.

The Taken-for-granted Assumptions of the Modern Process of Liberation that belonged to the Old Order

The plan for liberation from the medieval order was based on two taken for granted assumptions that are proper to that order:

1) *It is not possible to conquer human autonomy for action unless truth is redefined. A necessary link between free action and truth is thus assumed.* Notice that today, when everybody speaks so much of "freedom", most people would not see that link as necessary. Freedom, as understood nowadays, is either arbitrary personal free will ("I do this because I want to, and that is all") or freedom to participate in the market. Neither of these notions is seen as connected to one or another source of truth. On the contrary, as we have seen, due to the role of revelational truth in the power domain of the Church, neither medieval people nor modern philosophers could conceive of a free action arising merely from an arbitrary will. As Kant clearly expressed, it had to be the result of the will to use reason in order to answer the practical question: "*What ought I do?*"

2) *The decision on human action is a moral decision.* Again, today when we think about the problem of "decision-taking" we do not have, in most cases, a moral problem in mind. Our problem is an instrumental problem: to choose the most convenient action in order to accomplish a given goal (most frequently related to buying and selling). On the contrary, *precisely because fact and value were not separated before Modernity, to decide what to do was necessarily linked to deciding about what is good and what is bad.* As a consequence, although the new *constellation* created the separation between fact and value, *the necessary link between decision-making and moral decision-making was taken for granted all*

along modern philosophy, at least until Hegel. To be sure, the whole project of autonomy (and with it the new *constellation* --together with modern philosophy and modern science) was based on this assumption. So much, that without such an assumption, the project itself would have been meaningless.

Curiously enough, these taken-for-granted assumptions --the necessary links between free action and truth and between decision-taking and moral decision-taking-- came from the order that was supposed to be subverted. *Even more curious is the fact that when the separation between fact and value was finally assimilated in contemporary western cultures, the whole project of liberation became meaningless.* Both “curiosities” can, however, become perfectly understandable if we pay heed to the internal logic of a process of liberation. This we will do in the following, so that we can comeback later to such “curiosities.”

The Internal Logic of the Process of Liberation

Remember that while the will to freedom is at the basis of the new “*constellation*” of Modernity, the particular content of the modern notion of “freedom” is also recursively created alongside the new *constellation*. It is crucial to understand that this will to freedom is not an abstract, void, general will to freedom. It is the will to emancipate from a particular focus of domination: the Church, so that human beings can decide about their action. The search for autonomy is thus a reaction against something and towards something. That against which the reaction is taking place must then condition both the form of the reaction and that towards which the reaction is taking place. If we use the symbols introduced earlier in this writing, we can then say that the will to *liberation from X to Y* is such that both Y and the *act* of liberation *from X*, are conditioned, even more, *in-formed*, by X. The act of liberation is a reactive force that necessarily depends and is in-formed by that against which it is reacting. On the other hand, Y (that towards which liberation is intended) is constituted as a negation of X. Hence, the act and will to emancipation from revelational truth must be somehow in-formed by revelational truth.

We tend to have the naive idea that a reaction against a focus of domination will in itself be freed from that focus of domination. Total freedom from a focus of domination can only take place when the reactive force ceases. That is, when the original focus of domination is disregarded, ignored and thus, really disappears. But, when this happens, the liberating process ceases and the particular content of the notion of freedom coined along such a process loses its sense. Obviously, the will to liberation *from X* can last only as long as X lasts. The will to emancipation from revelational truth will last as long as revelational truth holds sway in one way or another. This means that if by any chance the inner source of power of Church domination and its revelational truth --together with its basic assumptions concerning the necessary link between truth, morality and freedom of action-- would disappear, then the will to autonomy, systems thinking, man conceived as “the

knowing subject”, the notion of the world (“world picture”) --in a phrase, the new *constellation* of the realms of being-- would also disappear, or at least suffer profound changes. And this is, as I would like to suggest as follows, precisely what we are witnessing at present.

MacIntyre’s Account on the Present Disorder of Practical Discourse

According to Alisdair MacIntyre, our present discourse on morality (and hence our present political discourse) is in a state of disorder of which we are not conscious. It is based on moral ruins (moral names and ideas) of an old order that we do not see at all in its holistic character. We cannot even see that we are dealing with mere moral ruins of an old order destroyed by some cataclysm, of which, we do not recollect. One of the consequences and, the only visible symptom of the present disorder of our practical discourse, is the incommensurability of rival moral arguments.

The state of disorder and its invisibility is reinforced by the dominant view of moral philosophy in our days, which MacIntyre calls “emotivism.” Emotivism does not see any such disorder in the incommensurability of rival moral arguments. On the contrary, according to emotivism, incommensurability of rival moral judgments is nothing but a normal symptom of the very nature of moral judgments. The essence of moral judgments is, and has always been within this view, that of an expression of an arbitrary feeling or emotion. Just as I might like the red colour more than the blue one for a pair of trousers, I like justice more than freedom of speech or, I think that Cubans must be eliminated because they are communists. Under this view, there cannot be any universal axiomatic platform over which to decide on moral matters. Since, according to MacIntyre, emotivism is itself a result of the state of disorder of moral discourse, emotivism is incapable of seeing its own ground. (MacIntyre, 1985). If we accept MacIntyre’s hypothesis as feasible, some questions come to mind: Why have we reached this state of disorder concerning moral issues? How was the old order before the cataclysm took place? What was such a cataclysm about? It seems to me that MacIntyre’s reply may be translated into our previous conceptual framework as follows:

MacIntyre argues that emotivism was enthroned as a consequence of the Enlightenment project’s failure to provide a rational justification for morality. Although the unsuccessful attempts of eighteenth-century philosophers like Kant, Hume, Smith, etc., had different shapes, they all shared the reason for their failure. According to MacIntyre, these philosophers of the new *constellation*,

...engaged in what was an inevitably unsuccessful project; for they did indeed attempt to find a rational basis for their moral beliefs in a particular understanding of human nature, while inheriting a set of moral injunctions on the one hand and a conception of human nature on the other which had been expressly designed to be discrepant with each other. (MacIntyre, 1985, p. 55).

Notice that MacIntyre coincides with our former framework in that a critical point of contradiction within the project of Modernity was the notion of “man.” The notion of “man” arisen from the modern *constellation* was quite different from that embedded in the old order, from which the “inherited set of moral injunctions” came. The notion of “man” arising from the modern *constellation* was, according to MacIntyre, that of an abstract de-socialised “*individual* prior to and apart from all [social] roles” (MacIntyre, 1985, p. 59). On the contrary, the notion of “man” embedded in the old order (from which the moral injunctions that the eighteenth-century philosophers wanted to justify came) was as old as the ancient Greek tradition prior to Aristotle.

For according to that tradition to be a man is to fill a set of roles each of which has its own point and purpose: member of a family, citizen, soldier, philosopher, servant of God. (MacIntyre, 1985, p. 59)

According to MacIntyre, when each human being experiences a self primarily in terms of his social role,²⁸ --and not primarily as an individual who can play, thereafter, “social roles”-- he knows how ought to behave in a given situation. Behavioural norms follow immediately from the knowledge of the role. The social “practices” (from which “roles” stem) provide a set of “virtues” that comprise moral standards of behaviour. The moral injunctions that eighteenth-century philosophers wanted to justify came from traditional virtues reshaped along Western history. On the contrary, the abstract modern individual is, according to MacIntyre, doomed to fall in the trap of emotivism.

Notice that the difference between the two notions of “man” can be more solidly grounded in our previous framework derived from Heidegger’s work and Interpretive Systemology’s onto-epistemology. As explained before, the new essence of man provided by the modern *constellation* corresponds to an *abstract individual* (arising from a will to liberation subject to certain taken-for-granted assumptions embedded in the old order). The ancient Greek notion of “man” is, on the contrary, embedded in a different way of experiencing beings, inseparable from the experience of the self and of the other-self (alter ego). Although MacIntyre’s framework might be ontologically shallower, it enriches the previous one (mainly inspired in the work of Heidegger) due to its extensiveness concerning moral issues.

In any case, it seems clear that,

They [eighteenth-century philosophers] inherited incoherent fragments of a once coherent scheme of thought and action [concerning moral injunctions] and, since they did not recognise their own peculiar historical and cultural situation, they

²⁸ In which case, as already discussed, we should not talk of a “social role”, for the idea of “role” arises from the modern conception.

could not recognise the impossible and quixotic character of their self-appointed task. (MacIntyre, 1985, p. 55).

Indeed, as explained above, before mentioning MacIntyre, eighteenth-century philosophers were taking for granted a part of the order they wanted to change by means of the liberation project. There is, however, in this point, another difference between our former conceptual framework and MacIntyre's explanation:

According to MacIntyre's schema, the state of disorder of our present moral discourse, well represented by emotivism, is *a* consequence of the failure of the *practical* side of the project of the Enlightenment. In turn, that failure is a consequence of the contradiction between, on the one hand, the conception of human nature implicitly and unnoticeably embedded in the moral injunctions the project was seeking to justify rationally (and which were inherited from a past traditional order) and, on the other hand, the new explicit conception that the protagonists of the project (eighteenth-century philosophers) had of human nature. This, when viewed from the perspective of the previous framework, is only a part of the story. MacIntyre's schema is shortsighted for it concentrates only on the practical (moral) side of the project of Modernity and does not pay enough attention to its onto-epistemological side.

Remember that the project of providing a rational basis for inherited moral injunctions was part of and owed its sense to the whole project of emancipation from Church domination. Such a project of liberation was constituted by an onto-epistemological or theoretical basis --which should provide a theoretical criterion for distinguishing between true and not true-- and a practical basis --which should provide a practical criterion for distinguishing between right (good) and wrong (bad) behaviour. The onto-epistemological basis --centred around the fundamental dualism {*subjectum* - *objectum*}-- was responsible for both the radical separation between "fact" and "feelings" and the new essence of modern man. In turn, the fundamental dualism was a consequence of the will to liberation *from* Church domination, represented by revelational truth, *to* a new legislation that could, on the basis of a new source of truth, provide the criterion for moral decision-making (which was regarded as the fundamental problem of decision-making). The very constitution of the liberating project was based on taken-for-granted assumptions about the necessary links between, on the one hand, autonomy and truth and, on the other hand, between decision-making and moral decision-making. Such hidden assumptions were based on the old order that was attempted to be changed. The notion of man embedded in the old order was different from that embedded in the new *constellation* which, in turn, was a result of the very project of liberation.

Under this rather more complicated schema the collapse of the project of liberation, together with its associated *constellation* and its inner contradictions, take place only when that against which emancipation is reacting becomes exhausted.

In this order of ideas, the state of disorder in moral discourses to which MacIntyre refers was not simply a consequence of the failure of the practical side of the project of the Enlightenment. From a close point of view, both the state of disorder and the failure of the practical side of the project were rather a consequence of the fact that there was *a* practical side differentiated from a theoretical side. Such a differentiation was based on the radical separation between fact and feelings. In turn, the whole structure of the *constellation* was reaffirming the radicalism of this separation which later became the dualism {fact - value}. From a distant point of view, the state of disorder was a consequence of the exhaustion of the old order, which implied the exhaustion of the liberating will of Modernity and hence, of the modern *constellation*. Obviously, when seen from this distant point of view, the state of disorder of moral discourse was not the only consequence of such exhaustion. Indeed, *once the liberating project is exhausted, the whole constellation of Modernity disappears, or at least its constitutives change their meaning:*

1) The modern essence of man slowly vanishes. As Foucault writes,

As the archaeology of our thought easily shows, man is an invention of recent date. And one perhaps nearing its end. If those arrangements [the constellation of Modernity] were to disappear as they appeared, if some event of which we can at the moment do no more than sense the possibility --without knowing either what its form will be or what it promises-- were to cause them to crumble, ...then one can certainly wager that man would be erased, like a face drawn in sand at the edge of the sea. (Foucault, 1966, pp. 387, my square brackets).

2) Since the modern “world picture” has sense only as the dualist counterpart (arising from a systems will) of the modern notion of man, if the latter is “erased”, both “world picture” and “global issues” are also erased. Indeed, on the one hand, the ontological status of the world as that which, along time, has not been the human subject, is erased together with the human subject. On the other hand, the ideal of “humanity” that animates (from the practical side) the notion of the world also has to disappear within the exhaustion of the project of liberation.

3) Values, as MacIntyre says, become mere tastes.

4) Philosophy disappears or becomes associated with the “occult sciences.”

5) Modern Science succumbs to technology.

6) The will to systems and, hence, systems thinking become meaningless. Without the project of liberation and without the structure of the new *constellation*, systems thinking becomes baseless.

Concerning this last point, one could then ask: What is then the (historical) meaning of our present systems thinking? Is it the last echo in a land of deaf of the will to liberation? Or is it rather a strategy to further confuse the dying discourse of Modernity and its liberating project? We will come back to this point in the concluding remarks of this work.

These and many others (that at the moment we are not able to see) are dramatic consequences of the exhaustion of the will to liberation and of its associated modern *constellation*. Such exhaustion has been presented, in turn, as a consequence of the exhaustion of the old order from which the will to liberation was to emancipate. But, why and how the old order, from which the emancipating project is taking its reactive force, become exhausted?

The Phrase of Nietzsche: “God is Dead”

One hundred years ago, Nietzsche caught sight of the exhaustion of the modern *constellation*, much before the signs were as clear as they are now. According to Heidegger, Nietzsche associated the end of the *constellation* of Modernity with the end of the supremacy of the suprasensory over the sensory. Such a supremacy, constituted as metaphysics since Plato’s times, was at the root of the old order from which the project of Modernity wanted to emancipate. However, it also remained at the root of that very project of emancipation. From the Platonic supremacy of the “*ideas*” over the sensible, through the supremacy of the world after death over this earthly and spurious world, in the Middle Ages, metaphysics takes a new shape in Modernity: the supremacy of the *subjectum* over the *objectum*.

To be sure, according to Heidegger, the separation and opposition between “the ought” (which still is far to be conceived as value) and *being* “begins as soon as being is defined as *idea*” (with Platonic philosophy). But, it is not until the modern era,

that the distinction between *being* and *the ought* really comes into its own. The process is completed in Kant. For Kant the essent is nature... To nature is opposed the categorical imperative, also determined by reason and as reason. In relating it to the mere essent as instinctive nature Kant calls it explicitly the ought [*sollen*]. Fichte proceeded to make the opposition between being and the ought the express foundation of his system. (Heidegger, 1953, pp. 197-198, my italics).

The supremacy of the suprasensory over the sensory, characterised in the modern epoch by the supremacy of the *subjectum*, begins to fade away in the nineteenth century. “In the course of [this] century the priority passed to” the sensory. The distinctive constitution of the notion of “value” plays a significant role in this “overturning.” The new predominance of the sensory,

endangered *the ought* in its role as standard and criterion. *The ought* was compelled to bolster up its claim by seeking its ground in itself. The moral claim had to present its own justification. Obligation, the ought, could emanate only from something which in itself raised a moral claim, which had an intrinsic *value*, which was itself a *value*. The values as such now became the foundation of morality (the ought). But since the values are opposed to the being of essent in the sense of facts, they themselves cannot *be*. (Heidegger, 1953, p. 198)

This dubious character of values is at the root of MacIntyre's emotivism.

What Nietzsche caught sight of, he summarised in a simple and largely misunderstood sentence: "God is dead." As Heidegger explains it, "God is dead" means much more than people do not believe in God any more. "God is dead" means the "overturning of metaphysics", the end of the supremacy of the suprasensory over the sensory.²⁹ Through the overturning of metaphysics,

...there remains for metaphysics nothing but a turning aside into its own inessentiality and disarray. The suprasensory is transformed into an unstable product of the sensory. And with such a debasement of its antithesis, the sensory denies its own essence. The deposing of the suprasensory does away with the merely sensory and thus with the difference between the two. The deposing of the suprasensory culminates in a "neither-nor" in relation to the distinction between the sensory and the non-sensory. It culminates in meaninglessness. (Heidegger, 1952a, pp. 53-54).

As we have extensively argued, the new *constellation* of Modernity is founded in the fundamental dualism {*subjectum* - *objectum*}. Due to the very nature of the "will to liberation *from* revelational truth *to* a new autonomous universal legislation", the *subjectum*, and hence, the suprasensory, has a supremacy over the sensory. To be sure, such a supremacy is a new adaptation to the same hierarchy already defined since Plato. However, the inner contradiction of the new *constellation*, together with the domination of technology, later on bring about, the deposing of such hierarchy. Modern man becomes, as Foucault suggests, the murderer of God (Foucault, 1966). But, as the murderer of God and hence, of the very essence of the *subjectum*, modern man becomes his own murderer.

THE POSTMODERN CONSTELLATION OF THE REALM OF BEINGS

We are at the threshold of a new order different from any traditional order before Modernity and different from the *constellation* of Modernity. We keep talking with the words (that rapidly become no more than ruins), not only of a moral discourse and order, as MacIntyre suggests, but of the whole *constellation* of the realm of beings that Modernity reshaped from other traditional orders. However, we lost sight of the order of such constellation from which those words stem.

²⁹ However, according to Heidegger,

How stubbornly the idea of value ingrained itself in the nineteenth century can be seen from the fact that even Nietzsche, and precisely he, never departed from this perspective. His entanglement in the thicket of the idea of values, his failure to understand its questionable origin, is the reason why Nietzsche did not attain the true center of philosophy. Even if a future philosopher should reach this center --we of the present day can only work toward it-- he will not escape entanglement, but it will be a different entanglement. No one can jump over his own shadow. (Heidegger, 1953, p. 199).

The suprasensory world, the Ideas, God, the moral law, the authority of reason, progress, the happiness of the greatest number, culture, civilisation, suffer the loss of their constructive force and become void. (Heidegger, 1952a, p. 65).

Within the new postmodern order (that is rapidly substituting the modern *constellation* of the realm of beings), we are not worried about “global issues” any more; we are not worried about justice and freedom (in the modern sense of the word) any more; we only care to be successful in the visible centre of the new order, in the *market*. We, as human beings, have passed from being *human subjects* to being *buyers* and *sellers*. The Cartesian *cogito ergo sum* has been substituted by “*I shop, therefore I am.*” Things are not *objects of knowledge* (nor acts of unconcealing from the concealed) any more, they become things ready-to-be-used. The new realm of beings is defined by *technology*. But “technology” here should not simply be understood as the production of goods. “Technology” is precisely the source of a new realm beings: *things-ready-to-be-used*. Not only does technological artifacts belong to this category, but mountains, birds, dawns, sunny days and human beings also belong to it.³⁰ The new realm of beings constitute the postmodern constellation. We have indicated some of its aspects in the last paragraph. In some other writing, we should continue the picture of the postmodern constellation.

CONCLUDING REMARK

In the introduction, the form and style of this inquiry was metaphorically compared with a journey through a path whose shape was that of a three dimensional spiral. The journey, initially launched by the above question, was propelled all the way by successive questions arising from the findings of the trip. However, as it often happens in this type of adventure voyages, there was a hidden suspicion --a hidden question-- pushing from behind the whole journey. The hidden suspicion, as the reader surely noticed half way through, is similar to MacIntyre’s hypothesis commented above concerning the state of disorder of nowadays moral discourses, but extends beyond the realm of moral arguments. The hidden suspicion, reinforced by the discoveries of the journey, is as follows:

We, contemporary people of Western cultures, have slowly and inadvertently witnessed the transition from the modern *constellation* of the realm of beings to a postmodern *constellation*. To be sure, although such a transition started during the nineteenth century, when Nietzsche first caught sight of it, it is now, during the last 30 or 40 years of the twentieth century, when the structure of a new postmodern constellation begins to loom up.

Our present discourses, uttered within a new postmodern constellation, use phrases and words whose original meanings belong to interpretive contexts that are

³⁰ This is the subject matter of the famous essay of Heidegger, “The Question Concerning Technology” (Heidegger, 1962).

now buried. Clue words like liberalism, democracy, justice, freedom, rationality mean today something quite different from what they meant during the Enlightenment. Furthermore, other words, fundamental to the former and to the whole realm of beings, have also changed their meaning considerably. Indeed, what we mean by general notions like “man”, “world”, “thing”, “another person” is quite different from the corresponding eighteenth-century meanings.

The general inquiry propelled by the above suspicion points towards the discovery of what Foucault has called an “ontology of the present”, which is nothing but a “critical ontology of ourselves” (Foucault, 1991). The discovery of an “ontology of the present” points towards the drawing of the present (postmodern) *constellation* of the realm of beings. Now, the very word “postmodern” clearly indicates its debt and its negative standpoint with regard to Modernity. I say “negative”, because it is presented as “*not-being-anymore*” Modernity. If we accepted this negative character of the drawing (and maybe, by the time being, we cannot do it in a positive way), the drawing of the postmodern *constellation* necessarily requires the drawing of the modern *constellation*. The latter will serve as a contrasting background for distinguishing the former. However, we are still too near Modernity to be able to see its boundaries with clarity. Therefore, in order to see those blurred boundaries of Modernity, we need another contrasting interpretive context for the modern *constellation* and, hence, for the postmodern one. This not-modern *and* not-postmodern *constellation* could be the ancient pre-Socratic way of experiencing Being attempted by Heidegger; or that of any other culture which could have been free from Western influence. In short, as I understand the task, discovering an ontology of the present (a not-anymore-modern *constellation*), requires the drawing of at least two contrasting interpretive contexts: The modern *constellation* and a *neither-modern-nor-postmodern constellation*. You surely recognise an outline of these interpretive contexts in the present paper.

However, at present, the ontology of the present cannot have the shape of an overall inquiry. As already commented, we are still far from grasping the boundaries, not only of our present constellation, but also those of the modern constellation. The ontology of our present has to have the shape of particular attempts or inquiring paths (journeys), starting from particular regions where the boundaries between constellations seem to cross each other.

The present inquiry has been one of those inquiring paths. It has started from the relationship of two fundamental notions of the modern constellation: “world picture” and “systems thinking.” These two notions are clearly carved in the title of this Conference and in the question which started our inquiry: “What does ‘addressing global issues from a systems perspective’ means for us nowadays? What have we found concerning this question? We have found a lot concerning its meaning within the modern *constellation*. We have found very little about its present meaning,... so far...

According to Heidegger, the slow process of destruction of the modern *constellation*, is accompanied by “blind attempts to extricate itself from meaninglessness through a mere assigning of sense and meaning.” (Heidegger, 1952a, p. 54). Maybe, “addressing global issues from a systems perspective” is, to a certain extent, one instance of that “mere assigning of sense and meaning” to which Heidegger refers. Maybe it is a sort of garment we wear for this type of social events called conferences. In order to support this hypothesis we could ask how many papers presented in this conferences were concerned with “addressing global issues from a systems perspective.”

But, maybe, the same can be said about our nowadays “systems thinking” that, from the forties, recognises itself as a new way of thinking.

Through the overturning of the modern *constellation*, we have forgotten that modern thinking, to which we are indebted in one way or another, is originally guided by systems thinking. Until Hegel, modern philosophy was the witness of this guidance. However, we forgot modern philosophy, and that is why “systems thinking” appears in the forties as something new. But, the striking point is that we forgot modern philosophy because systems thinking does not hold sway anymore. And it does not hold sway anymore because there is not anything as a will to emancipation which could give rise to a will to systems under the structure of the modern *constellation*.

To be sure, as we have seen, a will to systems conceived under the dualist structure of such a *constellation* is doomed to death. Hence, one could ask, can there be a systems thinking driven by a new will to emancipation, but conceived under a different *constellation* of the realm of beings? But, emancipation from what? Maybe from “technological” domination? If this were the case, the appropriated *constellation* for systems thinking could be neither the modern one nor the postmodern one driven by the power of technology. Can we invent this *constellation* for systems thinking? Do we want to invent it? Is there --rather, can there be-- at present, such a thing as a will to liberation to propel this new constellation?

In short, it seems that *our present systems thinking is*, according to the interpretive context developed in this paper, *no more than the epitaph on the grave of systems thinking*. But, what about “soft” systems thinking and its varieties -- among which “critical systems thinking” and “interpretive systemology” could be counted?

Soft systems thinking and all its varieties could stand for the call to rescue modern systems thinking from the new power of technology. Instrumental systems thinking represents the power of technology within the same house of systems thinking. However, most of soft systems thinking has become “soft technology” (manipulation techniques to ensure the stability of the new order) in total harmony with hard techniques (“Total Quality Management” is a good example of this eclectic link).

However, there are within this soft branch of systems thinking few sentences, here and there, remembering the old will to emancipation. What are they, the beginning of a new liberation against technological domination, or maybe just disguises helping the process of consolidation of the reign of technology? For example, one could ask, what is the meaning of this discourse that asks for its meaning?

REFERENCES

- Ackoff R.L. (1974). *Redesigning the Future*, Wiley, New York.
- Bertalanffy, L. (1968). *General Systems Theory*. Penguin, Harmondsworth (Reprinted 1973)
- Checkland, P.B. (1981). *Systems Thinking, Systems Practice*, Wiley, London.
- Descartes R. (1649). *Las Pasiones del Alma*, Aguilar Argentina, Buenos Aires (1981).
- Ferrater Mora, J. (1984). *Diccionario de Filosofía*, Alianza Editorial, Madrid.
- Flood R.L and Jackson M.C., (1991). *Creative Problem Solving*, Wiley, Chichester.
- Foucault, M. (1966). *The Order of Things*, Pantheon, New York.
- Foucault, M. (1991). What is Enlightenment? in Rabinow P. (ed). (1991), *The Foucault Reader*, Penguin Books, Harmondsworth.
- Fuenmayor, R.L. (1991a). The Roots of Reductionism: A Counter-Ontoepistemology for a Systems Approach. *Syst. Pract* 4, 419-447.
- Fuenmayor, R.L. (1991b). The Self-Referential Structure of an Everyday-Living Situation: A Phenomenological Ontology for Interpretive Systemology. *Syst. Pract* 4, 449-472.
- Fuenmayor, R.L. (1991c). Truth and Openness: An Epistemology for Interpretive Systemology. *Syst. Pract* 4, 473-490.
- Fuenmayor, R.L. (1992). The Trap of Evolutionary Organicism. *Syst. Pract.* 6, In press.
- Heidegger, M. (1952a), *The Age of the World Picture*. In Heidegger M. (1977), *The Question Concerning Technology and Other Essays*, Harper & Row, New York.
- Heidegger, M. (1952b), *The Word of Nietzsche: "God is Dead"*. In Heidegger M. (1977), *The Question Concerning Technology and Other Essays*, Harper & Row, New York.
- Heidegger M. (1953), *An Introduction to Metaphysics*, Yale University Press (1959), New Haven.
- Heidegger, M. (1962). *The Question Concerning Technology*. In Heidegger, M. (1977). *The Question Concerning Technology and Other Essays*, Harper and Row, New York.
- Heidegger, M. (1967). *Modern Science, Metaphysics and Mathematics*. In *Basic Writings*, Routledge and Kegan Paul, London.
- Heidegger, M. (1969), *On Time and Being*, Harper & Row, New York.
- Heidegger, M. (1971), *Schelling y la Libertad Humana*, Monte Avila (1985), Caracas.
- Heidegger, M. (1981), *Early Greek Thinking*, Harper & Row, New York.
- Kant, I. (1784). What is enlightenment? In Kant, I. (ed.), *Foundations of the Metaphysics of Morals*, Bobbs-Merrill, New York.
- Kant, I. (1785). *Grounding for the Metaphysics of Morals*, trans. J. W. Ellington, Hackett, Indianapolis.

- Kant, I. (1781/87). *Critique of Pure Reason*, transl. by Norman Kemp Smith, Macmillan, London, 1929.
- Kant, I. (1781/87.S). *Crítica de la Razón Pura*, transl. Pedro Ribas, Ediciones Alfaguara, 1978.
- Kant, I. (1787). *Critique of Pure Reason*, transl. by J.M.D. Meiklejohn, Prometheus Books, New York.
- Klein, E. (1967). *A Comprehensive Etymological Dictionary of the English Language*. Elsevier Publishing Company.
- MacIntyre, A. (1985). *After Virtue: A Study in Moral Theory*, Duckworth and Co., London.
- Russell, B. (1959). *My Philosophical Development*, George Allen & Unwin, London.