

DEVELOPMENT THEORY:

Notes for an Alternative Approach

By Johan Galtung
Université Nouvelle Transnationale
154 rue de Tolbiac
F-75013 PARIS

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1. Development theory in crisis.

Development theory is a holistic approach to human society, in principle - and dynamic, as the word indicates. It shares holism with such approaches as peace studies, future studies and women studies - all of them relatively recent, and all of them also reactions against the fragmentation of the study of the human condition into all kinds of specialties.

However, the practice has become sadly different. Instead of holism there has been a focus on economic aspects of the social space of human existence; instead of dynamism in an endogenous sense there has been a focus on the capacity to emulate certain societies held to be "developed", according to the now classical less developed countries(LDC), more developed countries (MDC)(and Washington DC)model. This type of approach, which has shown a remarkable ability to survive the presumably mortal attacks directed against it, has left out nature space, the setting for ecological development, or at least balance, on which the human condition is absolutely predicated; it has left out the (inner) human space of mental/spiritual development; it has left out other aspects of the social space although there is now - largely thanks to "reaganism"-a renewed interest in political development and theory of democracy- and it has left out the whole world space of regions and countries in conflict and cooperation. The latter has led to absurdities in the theory: if all countries have as a goal trade surplus and positive balances in general, then there is an obvious problem somewhere. In general, nobody seems to care whether societies held to be "developed" are mutually compatible in a global system.

So, we are left with a "theory" of development so miserable that it was incapable of foreseeing the ecological imbalances, incapable of taking into account the "civilization" diseases to the human body (cardio-vascular diseases and tumors) mind (mental disorders) and spirit (a general sense of meaninglessness), incapable of handling problems of gross social maldevelopment (e.g. bureaucratization, militarization and other forms of top-heaviness; lack of participation in general, flagrant inequalities). The point here is not that

the practice was unable to solve these problems: the point is rather that the problems were not accommodated within the theory, not foreseen by that crisis-ridden body of thought.

The following, then, are some thoughts about alternative theories or theory, giving an approach which is totally different, where suddenly India, for instance, stands out as much more developed in basic ways than, for instance, Norway in spite of the latter being much richer per capita in economic terms (but not in terms of a concept of richness to be developed below).

2. Four spaces and the assumption of isomorphism.

We keep the assumption of development theory as holistic, and interpret this term so as to cover the four spaces: the nature, human, social and global spaces. We also keep the assumption of development theory as dynamic, and interpret this as meaning changes towards some kind of "good" society, but on its own premisses, not assuming any universal definition of "good", except, perhaps, at a high level of generality and abstraction. In other words, holism, dynamism and ameliorism are the bench-marks of development theory.

Looking at the four spaces there is no scarcity of approaches. For nature space there is the entire school of ecological balance. For the human body there is the medical tradition focussing on somatic health, and on mental health; and then the whole religious tradition focussing on spiritual health or salvation. For social space there are all the programs for social betterment built into social structure, culture and ideology. And for world space there are the programs built into large "chunks" of humankind, the social cosmologies of civilizations. But there is no program for world society as such, except as projections from countries (eg federations, like the USA and the USSR, seeing an extension of themselves to USW and WSSR as desirable and attainable goals for the whole world). The world space - being the basic arena where peace is to be achieved - has yet to be mapped with a theory that is sui generis, at the world space level, and not some kind of reductionism to social, human and/or nature levels (which, of course, would be included in theories of

peace, only that the world level will have to play a major role).

Imagine that we now, as a point of departure, assume that there must be some basic similarity in the logic of stability in the four spaces, and that stability is at least a major component in the concept of development. Stability has to do with capacity for self-generated reproduction: the system continues on its own engine so to speak. We are then left with two possibilities: using the theory of stability based on one of the spaces, or develop a totally new theory, a general systems theory, to cover all of them as "systems". Both approaches are meaningful, but in the present paper I shall stick to the former, perhaps trying to enrich it a little with concepts from the latter. And that raises the second basic question, from which space to learn?

I think there are three good reasons to try to learn from the nature space:

(1) Nature has been around much longer than we have. As a whole it has changed and differentiated, evolved what is usually referred to as higher forms - we humans arrogating to ourselves the title as the highest. Consequently, there must be some inherent "wisdom of nature", whatever its roots, something from which we can learn.

(2) Nature space is basic, all the others depend on it - whereas nature can very well survive without human beings around, without their social and global spaces. We depend on nature, nature not on us - we even destroy nature as evidenced by the ecological crisis today, and more so than nature has been destroying us (through natural calamities of various kinds). The whole cosmic eco-chain has cosmo-, atmo-, hydro-, litho- and biosphere as its basis, the homosphere is a highly expendable tail.

(3) Perhaps our insight^{into} nature is better than our insight^{into} ourselves. This may be due to several reasons, of which two stand out. There is a distance between ^{ourselves} and the rest of nature which perhaps facilitates objectivity, insight, knowledge, whatever one might call it. Of course, a priori we might assume even more insight^{into} the other three spaces since we are in them and of them and by them. But precisely for that reason it may be more difficult to achieve the distance necessary to arrive at some fruitful general conceptualizations. We are too close to see ourselves, there is too much at stake in our subjective values and interests. And then: could it not also be that natural scientists are simply, grosso modo, better at that game, at doing science, I mean?

However, let me add that when for these three reasons nature space is used in this context as the model for the other three, it is only seen as one possible approach, as something to be tested for its heuristic value.

Spaces and Sub-spaces

In doing so, the point of departure is, of course, the general theory of ecological balance in nature space. By that we would now mean a nature space that includes not only abiota (in other words, the atmo-, hydro- and litho-sphere), but also biota (microorganisms, plants, animals). For the present purpose it is sufficient to state what seems to be a basic insight in ecological balance as follows: it is based on diversity and symbiosis. There is a certain plausibility to this: if a given part of nature space has sufficient diversity in abiota and biota (including access to the energy from the cosmosphere, solar energy in particular), and its diversity is made use of by the system for symbiosis so that the parts relate to each other, interact with each other, generate new abiota and biota in repeated or changing (or both) exchange cycles, then after some time some kind of reliable balance should be the result.

This is plausible, also because it is so easily seen how a system in nature space might collapse: through lack of diversity (the abiota/biota needed are simply not available any longer), or through malfunctioning of the symbiotic mechanism. The former is seen in monocultural agriculture, which has to be maintained artificially by supplying diversity through manures and pesticides. And the second is seen in the nuclear winter, where the basic assumption in the scenario is that due to clouding of the atmosphere the interaction with cosmosphere is reduced so that a major form of symbiosis in nature space no longer functions, photosynthesis.

We shall refer to the joint functioning of diversity and symbiosis as "system maturity", and the general line of thought, for all four spaces, will be as indicated in Table I

TABLE 1: DEVELOPMENT GOALS - A SYSTEMIC APPROACH

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
SPACE	SUB-SPACE	CODE	SYSTEM MAINTENANCE (by definition)	SYSTEM MATURITY (diversity and symbiosis)	REPRODUCTION (using maturity)	RESILIENCE (to violence)	MAINTENANCE GOAL (to exploitation)	
NATURE	cosmosphere; atmo; hydro; litho- biosphere	genetic code	<u>bio-needs</u>	Several biotopes and exchange cycles	Renewal	injury to needs	injury to renewal capacity	<u>Eco-balance</u>
MAN	body - soma mind - psyche soul - spirit	genetic code personality	<u>bio-needs</u> other <u>human needs</u>	Several homotopes and exchange cycles	Reproduction Recovery	injury to needs	injury to reproduction recovery capacity	<u>Health</u>
SOCIAL	micro - primary meso - local, secondary macro - national tertiary	structure culture ideology	<u>social interests</u>	Several sociotopes and exchange cycles	Reconstruction	injury to interests	injury to reconstruct-ion capacity	<u>Development</u>
WORLD	regional global	cosmology global/human cosmology	<u>regional interests</u> <u>global interests</u>	Different systems in active and peaceful co-existence	Reconstruction	injury to interests	injury to reconstruct-ion capacity	<u>Peace</u>

The reader will find on the left the four spaces and along the top nine headings where the first two are simply the spaces and sub-spaces. There is the obvious subdivision of nature space, and then comes the human body, soma, that can be seen as a part of the human space, but certainly also as a part of the biosphere. The choice made here is in favour of the former. In that connection it should also be pointed out that a distinction has been made between mind and soul: the former is seen as the seat of emotions and cognitions, the latter as the seat of reflections on many things, among them emotions and cognitions of oneself and of others - in other words of self-reflection. In principle, this would also include reflections on one's own capacity for reflection, in other words philosophy. And so on, ad infinitum. It is this complexity that constitutes the personality, without necessarily having any clear view of where the line should be drawn between the mind and the soul, or whether the personality does also include aspects of the body in a purely somatic sense.

In social space a distinction has been made between the micro, meso and macro levels. The former is the small group surrounding any individual, usually based on kinship and/or friendship - in other words, primary relations; the second would be the local level of social organization in a territorial sense as well as the secondary associations usually based on values and/or interests in a social sense; and the latter would be the national level, or tertiary relations, (based on primary and secondary relations).

Finally, there is the world space, of interacting social spaces of all kinds. Much attention is paid these days to macro social spaces, in the sense of nation states and to the world as the system of nation states. Nobody will deny the importance of this, but it leaves out all international, trans-national and sub-national actors that also may be operating in the world space. So I prefer to keep the concept more open. However, regardless of what kind of actors one can find in the space, a distinction between the global system encompassing all actors of that kind and a regional system composed of only a sub-system makes sense, particularly for nation states.

The Code of Systems

Looking at the second column, what one finds is a very conventional hierarchy of increasing complexity, starting with cosmic energy and solar rays, and ending with world systems. It is a hierarchy of Chinese boxes; open one and inside you find the next level, open that one and you find the next one, and so on. But each space is steered by its own logic; each space has what is in the third column referred to as a code, which can also be referred to as a program. The programs are rules of transformations, defining processes of that space as goal-seeking entities, with complex feedback relations.

Thus, each organism in the nature space, in the biosphere, is the carrier of a genetic code that can be transmitted through acts of reproduction. The genetic code gives us the upper and lower limits of that entity, in terms of differentiation, complexity, etc. This also goes for the somatic aspect of human beings. But in addition human beings have personalities which we define as the code for the non-somatic aspect. These are the propensities of mind and soul, the characteristics that make it easy for us to recognise one person from one day to the other since the personality remains more or less the same even if some manifestations change—depending on the weather, what happened early in the morning, the food eaten late at night and what not. A dramatic aspect of the spiritual capacity of a human being is the capacity to reflect on one's own personality, and not only reflect on it but possibly even change it or change that of others, in any kind of "brainwashing" perceived as voluntary or involuntary by that person. Which of course makes one ask whether it is given to human beings, through spiritual means, also to change their own genetic code as some yoga practices possibly indicate.

Then there is the social space. The code is here seen as being built into the structure and the culture in an implicit form, and into the ideology in an explicit form - "explicit" meaning "spelt out".

In global space this becomes more complex since we are dealing with larger systems, bringing together many entities from social space. At this level it makes sense to talk about "deep structure" and "deep culture", meaning by that structural and cultural elements that seemingly different societies or systems in a region have in common. One might see them as the

expression of a "deep ideology", and that is what is here referred to as (social) cosmology - the "personality of a civilization", to put it that way. And that of course raises the question whether there is such a thing as a code for truly global space, encompassing everything, a deep human ideology beyond the genetic code that humans have in common.

The Maintenance of Systems

Let us now go on to the next column of "system maintenance". The two key concepts in this column are "needs" and "interests". We shall define them as the conditio sine qua non for system maintenance. If the needs of an organism are not satisfied then that organism disintegrates. This also applies to human beings, as biological organisms. And our needs can probably best be understood by studying the structure and function of the human being as a biological organism (in other words, anatomy and physiology), paying particular attention to the orifices of the body that should function (air, water and food should be let in, excrement out; sensory impressions should be let in, mental reactions be permitted to come out; sexual intercourse and birth to take place if for no other reason than because human bodies are obviously made to function that way), and so on. There is need for rest, there is need for activity. The list can be made long. Look at the list, put minuses in front of one or more of the items and you have a list of pain techniques, well-known to those who inflict punishment, even torture in all the social sub-spaces, from time immemorial, including parents.

Maybe it can be argued that these bio-needs for human beings fall into two categories: simple survival, which at the individual level means not succumbing to violence - direct or structural - and at the collective level, in addition to that, it also means procreation, that the human race will continue. And then, on the other hand, there is the need for something more than that, let us simply call it human well-being, the basic constituent in the World Health Organisation definition of health.

It is readily seen how dependent all of this is on nature. Nature is the space in which we rest and are active. Nature supplies most of the absolutely indispensable

inputs and receives (and transforms) some of our outputs. For nature to be able to accommodate, as a host, human beings, nature has to be strong, particularly if human beings act like parasites. And since humans are biological organisms with personalities, they have other needs than bio needs that may not be compatible with the stability of the nature space in which they are embedded, leading to exploitation of nature, expansionism, etc.

How, then, does one approach the problem of non-biological human needs? Elsewhere I have tried to classify them in two groups: identity needs and freedom needs. They are dialectically related. Identity needs demand some fixed point, some nucleus around which the individual can build and extend unions over and above itself as biological organism, and the freedom needs are the needs for space, for somatic, psychological and spiritual movement, in search of union or away from union. Maybe the freedom needs also include the needs to be able to escape from oneself, in other words to change, from time to time, the programs or codes embedded in one's personality?

Let me from these remarks proceed to the complex subject of interests, in social space and global space. What would be the interest of a social system or a system of social systems, whether the latter is regional or global? How, for instance, could one today conceive of "national interests", to take as an example a major type of social entity? Cutting through a long debate, could one not simply say that a social system has but one legitimate interest: that of satisfying the basic needs, biological and non-biological, of its members? And then one can discuss who the members are, are they only human beings, or could they also include other biological organisms? In that case, would it include all animals or only some of them? I do not claim to have an answer, only think that these questions should never be eliminated from the agenda of a good society.

I would then say that the same applies to more complex groupings, systems or social systems at any level of complexity, filling ultimately the global space. The global interest is to satisfy the interests of its members, the interests of its members are to satisfy the needs of its members. But since the latter

eventually depends on nature space, there is a limit to the extent to which one can get around satisfying the bio-needs of all organisms. And since the needs of organisms also depend on abiota, there is a limit to the extent to which one can destroy them. So, ultimately we depend on ecological balance in a super-space comprising all four spaces.

The Maturity of Systems

And that leads us to the fifth column: "System maturity". This is where the bald assumption enters: System maturity is by definition based on the level of diversity combined with the level of symbiosis (between the components that constitute the diversity). The assumption, then, is that the higher the level of system maturity, the more resilient is the system, the more able is it to reproduce both in the sense of maintaining itself and creating new generations, or withstanding various types of injuries, even of setting goals for itself, realistically, within the conditions of system maturity.

In all spaces this calls for several types of symbiosis. Let us refer to these types as biotopes in nature space, homotopes in human space and sociotopes in the social and ^{world} ~~global~~ spaces. Let us further assume a Chinese boxes logic: the ^{world} ~~global~~ space is an extremely rich sociotope, but so far in interaction with no other sociotope. Inside that sociotope there are social systems that may be exemplars of the same or different sociotopes, meaning social systems or societies; within those sociotopes there may again be, at lower levels of complexity the same or different sociotopes, until one comes down to homotopes, human beings that may or may not be of the same or different types and may or may not inside them have different homotopes or inclinations, propensities that are more or less developed.

Thus, on the one hand one could imagine a world space consisting of a number of societies exactly of the same type, based on exactly the same (and low) numbers of components, populated by human beings of a very uniform kind, who inside themselves have cultivated exactly the same (and in low numbers) inclinations. Then, on the other hand, there would be a world with very different societies that inside themselves would have very diverse components, all of this in very complex cycles of

interaction; populated by very diverse human beings who inside themselves would cultivate a high number of very diverse components or inclinations in very different ways, combining, feeding into each other also in different ways. A world of very low and very high entropy respectively. These are the kinds of images I hope to evoke, and I shall certainly refer to the first image as that of a highly undeveloped system, and the second image as that of a rather developed system. Obviously, "development" then means complexity and balance rather than single-mindedness and growth.

For nature space this is just another way of evoking again the image of conditions for ecological stability. But nature is a brutal place. There are certainly exchange cycles, ecological cycles starting with water, carbon dioxide and solar energy and ending with water and carbon dioxide (solar energy just going on and on, as that bountiful and seemingly endless input). Some of these cycles when translated in a normative manner into rules of behaviour in the human, social and global spaces, would not fare well as models: I am thinking of cycles including the food chain with the "higher" levels consuming the "lower" ones; microorganisms feeding on abiota; plants, also on microorganisms; animals being not only herbivores but also carnivores; human beings feeding on everything but not appreciating the idea that anybody should feed on us, not even on ourselves, stamping it out as cannibalism. Obviously, we need another principle here in addition to the idea of symbiosis as generally conceived of: we need a principle of respect for the needs of the other. Exchange cycles, yes, but with some basic form of tolerance. In some religious systems this tolerance norm is formulated as ahimsa, non-violence - extended not only to human beings, but also to animals (the case for vegetarianism, in hinduism and buddhism), in some cases also to plants and even microorganisms (in principle, the case of jainism). This was Gandhi's way.

Similarly, at the level of human space in a less biological sense, this means respect and tolerance for other personalities, and at the level of social space, respect and tolerance for other types of social organisation. So there we are, in the midst of philosophical and political wilderness: we are unable to arrive

at any formula without some kind of model injunction, some kind of norm. And this is not the norm of social justice, equality or even equity. As a matter of fact, the norm may even be anti-egalitarian since equality may have a tendency to lead to uniformity, homogeneity, and here the goal is just the opposite: heterogeneity. Moreover, the concept is not distributive between more or less endowed entities - social justice and equality are such concepts. Equity is a more relational concept, referring to the interaction between entities (that it should be "equitable", meaning roughly that all parties should get about equally much out of it). But here there is not even a demand for equity, except in the very basic sense that relations should not lead to the elimination of other types.

But does this not mean that we get into a vicious circle: on the one hand, we are interested in systems that are developed and peaceful, on the other hand, a condition for a system to be developed is that it is already peaceful, replete with tolerance? Yes, there is an element of circularity in the reasoning but that is not necessarily so problematic. The hypothesis would be that once the system has attained a certain level of diversity, for which I assume some level of tolerance to be a necessary if not a sufficient condition, then diversity will generate more diversity. It will feed on itself, so to speak. The result will be a system increasingly resilient, able to withstand injury from within and without. There is a positive dialectic between peace and development, in the sense given here to these complex notions.

So, one arrives at the conclusion that the strong human being is one who permits inside himself and herself several tendencies to emerge and develop and mature. Take Gandhi as an example: the saint and the politician rolled into one, the two interacting with each other in a highly symbiotic way, with neither the saint driving out the politician nor the politician eliminating the saint. And contrast this with the tendencies in so many societies, perhaps particularly modern occidental civilisation, to filter human beings into one particular channel where a limited set of propensities are developed as career - promoting and useful for society, teaching a human being to teach himself to suppress other inclinations. Of course,

that person also has what might pass as a way out, segmentation of the inclinations, being one person at work, a totally different person in the family, and still a different person in his or her leisure/hobby/peer group life. There is something schizophrenic in this, easily traced back to the formula of missing exchange cycles, of no interaction between the homotopes within that human being. He or she may pay dearly: according to some theories, the price for suppression of important inclinations inside oneself, striving to emerge and develop, may be cancer in somatic terms, schizophrenia or other forms of mental disorders in psychical terms.

From here to social space there is but a short step: a strong society according to this type of thinking would mix sociotopes and put them creatively together in exchange cycles. It would not be based on market mechanisms only or planning only, but on both. It would not be based on centralism only or decentralisation only, but on both. Moreover, it might be based both on the first 'both' and the second 'both' mentioned above. And the net result, of course, is a society with a much stronger level of economic/political activity than found in most "developed" countries today, combining a capitalistic and a socialistic sector, both at the local level and the more macro level of social organisation. The green, the blue, and the red together- but only to the extent that they tolerate each other, in relatively soft forms. In other words, light green, light blue and light red! Economic articulation both at the local and the national levels, both as market and as plan. Political articulation both as local direct democracy and national indirect democracy, both as a mechanism for selecting leaders or delegates and as a way of having everybody participate, seeing participation as one possible input, the output of which is not only social but also human development.

But what about ^{world}~~global~~ space? Where do we have a theory of this type at the ^{world}~~global~~ level? Curiously enough, the closest we come to that is probably the Soviet theory (of the 1930's) of "active and peaceful coexistence between the two systems". The idea is that socialism and capitalism can "coexist" at the global

level, in other words that the world may have more than one sociotope, and that the coexistence should be "active", meaning symbiotic; and "peaceful", meaning tolerant. In other words, the two components from ecological thinking and the moral injunction, the three principles together, are all found in the Soviet formula! But having said that, three critical remarks should immediately be put forward:

- (1) If this is such a good theory for the world, why not also use it inside society? Why not have, inside the Soviet Union, some capitalist and some socialist republics - even if this might mean changing the name of the country? (Incidentally, it should be noted that this is what the Chinese now seem to be aiming at with their famous "One country, two systems" formula.)
- (2) Why should there be coexistence only between two systems? Why not between different systems, not assuming that capitalism/socialism exhausts the range of human imagination? (It does not). Or, is this fixation on the number 2 a part of the manichaeian fascination with dichotomies, in Russia particularly well known as bogomilism?
- (3) Moreover, is this a theory for a goal state of the world or only for a transition to a world with only one sociotope, socialist countries? Is it simply a formula of convenience because capitalism is still too strong and not yet sufficiently in crisis to dig its own grave? - Besides, could it be that there is much to learn, e.g. capitalist technologies, which may be useful for socialist countries?

In spite of the validity of these three objections, the formula no doubt points to something very important. And, the formula shows that there may be a basis for convergence of thought not only between the four spaces as here indicated, but also between ideological camps in the world today, combining the avowed tolerance/pluralism of capitalist/liberal societies with some of the thinking of the socialist camp.

Reproduction of systems

Let us then proceed to column N° 6: reproduction, making use of system maturity. In a sense there is nothing new that is being said here. It is only pointed out that if in nature space the two conditions are satisfied, then there is a natural renewal capability which is threatened when diversity and/or

symbiotic capacity diminish. Similarly, it is pointed out that the same applies in human space. It obviously applies to reproduction based on two homotopes, man and woman, and their symbiotic interaction, intercourse. Precisely because this is so trivial, it bestows some validity on the scheme. The very condition for the reproduction of human space in a biological sense is already there. The theory touches ground in a very basic sense, so to speak. But this also applies to recovery, from states of ill health. The thesis would simply be that the human being who has grown in diversity, letting the various homotopes in himself/herself play together has a much higher resistance capacity to disease, an immunity system way beyond that which is attributed to the white blood corpuscles. The highly one-sided sportsman dies from over-exertion of the heart in middle age; the intellectual who never in any way takes care of his body does the same. Balance is the key to health, but that is but another word for letting more than one human flower grow and interact, inside yourself.

When we then move on to social space, the logic is the same. A society playing on both market forces and planning forces is stronger provided it has obtained not only a balance in a quantitative sense but also symbiosis in an interactive sense between the two. It is stronger both because of the synergy coming out of that interaction, with planning exercising mild guidance of the market and undoing some of the damages resulting from its social darwinism, at the same time as the market energises the planning including the point, sometimes, of giving it something to plan! But there is the second factor: if one of these should fail, for instance because the foreign market collapses or the planning becomes too rigid, there is always the second one. Walking on two legs being better than walking on one; walking on three legs being still far better when one includes the local basis of the economy. And the polity? Actually, this whole approach even yields a theoretical basis for democracy, for what is democracy if not exactly the symbiotic interaction between diverse parties?

It should be noted that both conditions, as well as the moral injunction, are among the pillars on which democracy is based.

If there is no diversity, but only uniformity, homogeneity, not only in terms of attitudes/beliefs but also in terms of actions/structures within the confines of a society, then what is the use of interaction? And if there is only pluralism in attitudes and in the sociotopes, (the substructures found inside the social system) but no interaction between them, then one may of course get democracy in the sense of counting prevalences, majorities among the actors, individual and collective. But one does not get the full richness of the system based on give and take, learning and teaching, rubbing attitudes, actions and structures against each other, developing dialectically together, respecting the right of the other attitude and the other actor to exist (but not maintaining them artificially either). In short, not only sexual reproduction and love, but also the whole basis for democratic thinking are already embedded in this simple little approach. Again, that is taken as a confirmation of its validity.

Given these characteristics of a society, reconstruction should in principle come easy. The whole system is vibrant, organic. Hit at some point, there may be injury but there is plenty material around, even abounding, for reconstruction. And in principle the same applies to the ^{world} ~~global~~ space: the more uniform and devoid of interaction, the more vulnerable; the more diverse and symbiotic, the more capable of reconstructing itself.

Resilience of Systems

And this is where columns 7 and 8 enter the picture: the heading they have in common is 'Resilience', to direct violence and structural violence respectively, in the columns referred to as 'Violence' and 'Exploitation'. Direct violence is injury to needs, and injury to interests of more complex systems in social and global spaces, meaning their capacity to satisfy the needs of their members. I have defined needs in a very broad sense, including both somatic and non-somatic needs, and both those that are easily hurt by direct violence and those that are touched by the slow operations, usually unintended, of structures. At the most basic level, this gives us the four major types of injury in the world

today: the negation of survival known as "holocaust"; the negation of well-being known as "silent holocaust" or structural holocaust as it may also be called - the dying out of people and the cutting off of young human flowers, infants and small children in the Third World; the negation of freedom known as the KZ and the Gulag; and the withering away of feelings of identity to the point where the only focus of identity is one's own ego, one's own needs, not to mention greed - in other words the "spiritual death" of materialist individualism. Systems with high levels of maturity would have the resilience making them capable of resisting such injuries, surviving intact.

Column N° 8, exploitation, takes up the same theme but in a more basic way. It goes deeper. The injury is no longer only to one particular need (or at the more complex levels, interest) but to the very capacity for reproduction. My definition of "Exploitation" is then as follows: any utilization of a resource, in nature, human, social or world spaces, to the point where that entity is no longer capable of reproducing itself. In nature space it is well known what this means: resources have been made use of beyond their renewal capacity. The result is known as depletion. In human space it is also known what this means: a human resource is made use of beyond its production capacity as an individual: it is simply "exhausted". A good night's sleep after sufficient food constitutes some basic conditions for recovery even from serious strain, even from injury. One indicator of what is happening would be to take note of the state of the human body, mind, and soul, every morning, over time, until it is quite clear that recovery is no longer taking place. However, the human reproduction capacity from one generation to the next is extremely resilient, so exploitation in human space is ontogenetic rather than phylogenetic, to put it that way. Bio-genetic transmission is robust.

A society no longer able to reconstruct itself is a society deprived of its capacity for autonomous reproduction. There is injury to the interests; there is insufficient capacity to undo the injury. In world space, this also occurs;

Civilisations are known to be born, mature, expand and then contract, becoming senile before they eventually die. The metaphor chosen by Naipaul for India, "a wounded civilisation" is an apt one. However, it may not apply to India, given the extreme resilience of that particular civilisation, and this as evidenced by a very simple indicator: its existence on earth for about 3,500 years, which is already more than can be said about most other civilisations.

Injury to reproduction capacity does not necessarily mean death. Reproduction is self-generated, autonomous; but inputs may also come from the outside if the system is not closed. Nature space may be artificially kept alive through manure and pesticides; human space through biochemical and other types of engineering; social space through "development assistance" and "loans"; regional space in the same way, as today is being done to the Third World. A condition, of course, is that there are other entities in the four spaces capable of extending this assistance. The outcome is probably, in general, that the "wounded system" disappears as an autonomous system and is incorporated into a super-system in which the donor is a part, taking on some of the characteristics of the donor. In other words, as an autonomous system it is dead.

Maintenance as a goal of systems

And that brings us to the last column: What is the goal of this entire maintenance exercise? The goal is not system maturity as such, this is rather a condition on which to build. For nature space the goal is ecological stability, meaning a system on which human beings can also draw as a resource without hurting its reproduction capacity. Maturity is a condition for this stability. But stability goes beyond, it has to be nurtured and developed further.

In human space one might stipulate a similar goal: health in the broad sense of that word, a sense of somatic, mental and social well-being as it is quite well expressed by the World Health Organisation. Again, system maturity is a condition on which health can be built, somatic health, mental health, spiritual health - the latter usually known as "human development" in a more narrow sense. Or "salvation", in a religious sense.

And the same applies to social space. System maturity only indicates conditions for development to take place. It is like a solid foundation, the rock bottom on which taller structures can be erected. At the same time it gives some ideas about how the construction should take place: in a spirit of pluralism. If there are more ideas around, why not practise several of them, not only one; why not let them interact with each other? The history of civilisations seems to indicate more than clearly that it is the moment when the rulers think that they have developed the only correct idea and put it into practice with a social order with only one sociotope, that the end of that civilisation is in sight.

3. Some concluding words

This is not the place to develop these themes further, these are only some notes. Let me point out again what many might look at as a weak building block in the construction: "the moral injunction". I see no way of escaping from it, I see no engineering that can guarantee a built-in respect for that which is different. It is something that has to be cultivated, which means that the culture containing this type of tolerance already as a tenet of belief is one that may survive for a long time. Hereof course, Hinduism and India enter as examples with almost incredible resilience at the level of the social and ^{world} ~~global~~ spaces. In the other two spaces health and ecological balance are fundamentally not only threatened but eroded - in these spaces tiny, singularistic and intolerant Norway may be doing better.

In conclusion, let me also point out that the development concept proposed here, system maturity, is less growth-oriented and more resilience-oriented. The goal is strength, and not at the expense of others, in all four spaces. The approach is holistic. In the growth-oriented approaches, the goal is also strength, but if necessary, at the expense of others, and in a very one-sided way, based on a narrow band of factors only - locating both cause and effect in economic aspects of social space. The result is spectacular until one-sidedness and growth lead to ruptures, decline and fall.

On the other hand, there is more than enough to do within the present approach - only that it is more qualitative, less quantitative. Ecological balance, health, development and peace - four aspects of development in a broader sense - are no modest goals to set for oneself, even if there should be some similarity in the underlying logic.