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## **The Shadow that the Future Throws**

Text based on a conversation between Nathan Gardels and Ivan Illich in 1989

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Ivan Illich

## THE SHADOW THAT THE FUTURE THROWS

**Gardels:** Because of your radical critique of industrial society fifteen and twenty years ago in such books as Energy and Equity, Medical Nemesis, and Towards A History of Needs, you are widely regarded as a founding thinker of the environmental movement.

Now, many of your concepts have entered into the vocabulary of the established institutions of industrialism and development: the World Bank now talks about "sustainable development," incorporating ecological concerns into their sponsorship of economic development; George Bush, Maggie Thatcher and Mikhail Gorbachev worry publicly about the warming atmosphere and promise "an environmental agenda."

What's happened?

**Illich:** Many side effects of progress that are obvious but taboo have been turned into fodder for new kinds of managers. The central thesis that ran through much of my early work was that most man-made misery in our societies - from the suffering of cancer patients to the ignorance of the poor to urban gridlock to lack of housing to air pollution - was a by-product of the institutions of industrial society, institutions originally designed to protect the common man from the inclemency of the environment, improve his material circumstances and enhance his freedom. By breaching the limits set on man by nature and history, industrial society, reaching a certain critical threshold in the name of progress, engendered both disability and suffering in the name of eliminating disability and suffering!

In this early critique, I recalled Homer's warning of the doom of Nemesis. Driven by pleonexia, or radical greed, Prometheus transgressed the boundaries of the human condition. In hubris, or measureless presumption, he brought fire from the heavens and thereby Nemesis onto himself; he was chained to a Caucasian rock. An eagle preyed on his liver, and heartlessly healing gods kept him alive by regrafting it each night. The encounter with Nemesis made the classical hero of this epic tragedy an immortal reminder of inescapable cosmic retaliation.

With industrialization and strategies for progress, I wrote, Everyman now becomes Prometheus; he has fallen prey to the envy of the gods in his inordinate attempt to transform the human condition. Nemesis has become endemic; it is the backlash of progress.

With progress aimed at ending the elements' threat to man, the servitude of one man to another, man became enslaved to professionally managed techniques and the very institutions that provoke the destructive envy of the cosmos. In the industrial society we have constructed, man cannot do without his CO<sub>2</sub>-belching automobile, his radiation therapy or his non-biodegradable plastic packaging at the supermarket.

Common to all pre-industrial ethics was the idea that the range of human action was narrowly circumscribed. In pre-industrial times, technology was a measured tribute to necessity, not the road to mankind's chosen action. If the species was to survive, I argued then, it could do so only by learning to cope with Nemesis.

I remember a seminar in the summer of 1970 in which I included a reading list on what we then called "environmental issues." It included several of the first studies on genetic changes in children

born after the fallout of atomic experiments in Bikini, a study on the pesticide residues in the human liver, and the very first study of its kind on DDT residues in mothers' milk. At the time, I recall, I was violently attacked by a German colleague for engaging in "apocalyptic randiness."

Now, nearly two decades later, a woeful sense of imbalance has dawned on the common sense. The destruction of the ozone layer, the heating up of the earth's atmosphere, the non-reversible and progressive depletion of genetic variety, the ability to discuss what shall be a human being through genetic intervention - all these things bring to consciousness, even to a non-philosophically inclined intelligent official of the World Bank, that we now face the banquet of consequences of our Promethean transgression.

There is a generalized sense now that the future we expected does not work and that we are in front of what Michel Foucault called an "epistemic break": a sudden image-shift in consciousness in which the once unthinkable becomes thinkable. For example, it was simply not thinkable that a king could be beheaded up until the French Revolution. Then, suddenly, there was a new way of seeing, a new form of language that could speak about such things.

For most of the Cold War, atomic bombs were commonly considered as weapons. People like myself were little understood in our arguments that such bombs were literally unspeakable; that, epistemically, they are not within the realm of speech because they are not weapons, but acts of self-annihilation.

It is no longer tolerable to the common sense to think of nuclear bombs as weapons, or of pollution as the price of development. The disintegrating ozone layer and warming atmosphere are making it intolerable to think of more development and industrial growth as progress, but rather as aggression against the human condition. It is now imaginable to the common mind that, as Samuel Beckett once said, "this earth could be uninhabited."

So, what is different than when I first wrote about Nemesis is that the common sense is also searching for a language to speak about the shadow which the future throws.

What is new is not the magnitude, nor even the quality, but the very essence of the coming shift in consciousness. It is not a break in the line of progress to a new stage; it is not even the passage from one dimension to another. Mathematically, we can only describe it as a catastrophic break with industrial man's image of himself.

**Gardels:** When Prime Minister Brundtland and her World Commission on Environment and Development call for "sustainable development," they are both contributing to and detracting from a language that speaks to the future's shadow.

"Sustainable" is the language of balance and limits; "development" is the language of the expectation of more.

**Illich:** The Brundtland report consummates an aspect of development that began with Robert McNamara at the World Bank, incorporating an awareness that there are unwanted side-effects to development such as pollution, soil erosion, growing social inequality, and pauperization due to the destruction of native communities.

But Brundtland also takes this awareness a step further. She is for social justice paid for by redistribution. She tells the rich nations what they must pay for a tolerable distribution of wealth and environmental quality on a global scale. She tells the rich nations of the sacrifices growth tempered by ecology entails for them. But she remains firmly within the discourse of development.

In this sense, many of the institutional criticisms I and others voiced in the past two decades have been accepted, but the critique of the underlying concept of development still remains outside that discourse. The outer forms are crumbling, but the social habits that underlie them remain vigorous. It might be easier today to gain a consensus at the UN that the development epoch has closed and that it is now necessary to delink the pursuit of peace and justice from the nineteenth-century dream of progress, than it would be to find acceptance for the idea that "needs" are social habits that must be kicked.

The pressing questions for me today are: After Development, What? What concepts? What symbols? What images?

In order to find an alternative language, my colleagues and I are devising a dictionary of the history of those terms that are the mythological crystallization points around which modern experience is organized - terms like future, development, growth, participation, liberation, population, need ...

We engage in a kind of "spime" method, to coin a word from Einstein meaning space/time. Our method is to go back into history to discover the origins of these socially-constructed certitudes that today dominate the development discourse. Poetry, meditation, etymology, drugs perhaps, the thoughtful recovery of real-life moments in one's past ... these are so many different methods to discover the strange origins of our curious assumptions. Only by re-entering the present moment with this understanding will it be possible to establish a new discourse, a new way of seeing, a new set of terms that can guide sustainable "policies" without recourse to the Nemesis-engendering idea of development.

For example, underdevelopment itself is a term that was first used by Harry Truman in 1949 when the colonialism shattered by World War II revealed a world that was underdeveloped in the image of the industrial advances of the West.

Development is one of those terms with which we express a rebellion against the rule of necessity, against the acceptance of that necessity which ruled all societies up to the eighteenth century. The root certainty of the twentieth century, which is evolution, is interpreted by optimistic politics as progress which, in turn, is called development when it is taken over by homo faber, man the maker, through his tools.

From the beginning, the development discourse stressed that new techniques would make it henceforth unnecessary to remain bound by all that which constituted necessities for past generations.

Parallel to this discourse on the ability of modern science and technology to decrease the rule of physical, social and environmental necessity, another concept also came into vogue, participation. Its substantive meaning is the necessary assent of the "masses" to development. Since development reduces the constraints of necessity, people must, for their own good, transform their vague and sometimes unconscious desires into the verbal grunt of needs, those that professional hierarchies translate into monopolized service.

Needs are thus neither necessities nor desires. They are wants that have been redefined as claims to commodities. The appearance of such commodity-defined needs reflects a redefinition of the human condition. The constitution of needs, therefore, indicates a mutation of what is meant by the Good. The human condition once referred to a way of life within a realm of immutable necessities in which each culture, each generation cultivated desires or projects of a symbolic nature. For example, without transportation and refrigeration technologies, or scientifically produced seed

strains, great varieties of food were grown, complex but simple diets formalized, and seasons ritualized.

Development offers the promise of breaking out of the realm of necessities by discovering in nature and culture those resources that can be transformed into values - pieces broken out from the socially defined plenty of the commons for use in satisfying the boundless wants of the possessive individual. Needs redefine wants as lacks to be satisfied by values. Development, therefore, focuses wants on commodities which, by their very nature, must be perceived as scarce values. More importantly, desire which, historically, opened up ever new horizons, is now transmogrified into the expectation that needs can be defined and eventually satisfied. Satisfaction, which in English originally meant "payment of a penance," is now understood as a need that has been met.

Only during the last thirty years have needs so defined become a universal experience. Now, people speak about their needs for shelter, education and personal intimacy. They willingly renounce a significant portion of their income to insure satisfaction of these needs. But the constitution, propagation and proliferation of needs has assumed a quite different character under the aegis of development. Development implies a simultaneous deconstruction of necessities and desires, and a reconstruction of needs translated into claims. A linear sense of time progression inherent in the idea of development implies that there is always a better and a more.

Under the aegis of development-as-promise, new techniques and social procedures extinguished the commons that bounded wants, and transformed them into resources for the production of commodities by which those needs generated through the loss of the commons now could be satisfied (e.g. clean air, liveable cities).

More people need to be provided with food because fewer people in absolute numbers can grow their own food. More people in Mexico today need public transport because they have no choice but to commute in order to work in the market economy to purchase food with money. More housing needs to be provided by borrowing from North American banks because there is less space suited for self-built shacks, there are laws which discriminate against the techniques used in self-building, and people have lost the simple skill to assist their neighbors in pouring a roof slab.

As a result, they are easy prey for the latest stage in the development discourse. They learn to "participate" in political movements to seek entitlement to the satisfaction of their basic needs, as defined by professional advocates.

**Gardels:** So, the path beyond Brundtland, "after development," would involve a return to the idea of subsistence rather than development, a restoration of the commons instead of a needs calculus.

**Illich:** Yes, exactly. Sustainability without development is simply living within the limits of genuinely basic needs.

**Gardels:** But do I rightly understand you to consider the recent discourse on basic needs as one more conceptual trap?

**Illich:** Indeed. Needs might be the most painful legacy left by three development decades. With the new self-definition of the human as inexorably in need, previously unthinkable legitimacy is given to the planner and the manager. Existence itself is redefined in terms of scarcity. The desirable is

redefined in terms of consumption. Education becomes learning under the assumption of scarce care, mobility as transportation under the assumption of costly passenger miles.

**Gardels:** But then why not frame definitions in terms of post-scarcity, rather than of subsistence?

**Illich:** Because something quite new has intervened, the "information revolution." This has injected new life into what would otherwise have been the exhausted logic of industrial development. This encourages expectations that, through his tools, man can escape the limits of his condition.

The social and mental construct called digital information, based on either/or, yes/no, zero/one, black/white, cannot lead us to the condition of post-scarcity. Basing the future on either/or disembodied decision-making cannot escape scarcity. This mode of thinking creates scarcity, by its very definition.

Digital decision-making is not language; it is not culture; it can never recover the commons for us. Rather, it is the very creation of the most fluid market ever devised, that of information.

On the other hand, subsistence assumes culturally-bounded growth, that is, a context of commonly defined needs balanced against the limits of nature. Such a social awareness rests upon the historical knowledge of the human condition as precarious.

**Gardels:** Well, then, given the information revolution, can you entertain any optimism concerning the social embedding of alternatives to development/growth?

**Illich:** I first distinguish between the attitudes of hope and expectation in front of a "not yet." Expectation is based on a belief in instruments and the naive acceptance of socially constructed certitudes. Hope is based on historically-rooted experience, what Jean Paul Sartre called the "unsquashableness" of the phenomenological.

Giving up all optimism and pessimism, one is free to be courageous; one places no trust in tools and instruments; one comes to a hope based on human beings.

Now, I do see unsquashable signs of hope in the lifestyle of some drop-outs, for example, former professors who learn from subsistence peasants, articulated alliances among green committees, searchers for new options, transnational networks. But my practical phantasy is still unable to envisage how, short of a devastating catastrophe, the assumption on which the new alliances rest could emerge as a general common sense. One reason, I suspect, is that too many of these admirably courageous dissidents remain wedded to ideas like needs, education, health care and so on.

**Gardels:** Surely, when the revenge of the cosmos becomes manifest in the death of an ancient city like Mexico City, a place where the fetuses of the unborn are already poisoned by lead from the air their mothers breathe, a city that will lack the basic needs of water and breathable air by the year 2000, surely its ruins will stand, like Prometheus, as a monument to the curse of Nemesis.

Then, perhaps, policy will desert development and new forms of organizing life will take hold?

**Illich:** My view of Mexico City is no brighter than the image you just painted. But what is marvelous about Mexico City is why the city survives at all.

How come some people there are not drying up from thirst? How is it that a city where all its planners do their morning shit with water under them has not a single administrator who thinks about the fact that the dilution of feces in water is totally unfeasible in Mexico City? In a city where five and a half million have no stable place for shitting, somehow people keep even this aspect of their life under control.

Mexico City is beyond catastrophe. It is a metaphor for all that has gone wrong with development. But it is also a symbol of the stability of neighborhood equilibrium beyond catastrophe. It is a city into which 8.5 million cubic meters of water per second are pumped over a height of 2500 feet, requiring the largest pumps in the world that themselves require enormous concrete supports. Of the 42% of that water which goes to households, 50% goes to less than 3% of the households and 50% of the city's households get less than 3% of the water. This means that the latter 50% gets enough water to drink, cook and wash, and then to flush only every seventeenth shit!

In such a world, I see frightening but effective new forms of self-government emerging, forms which keep government and the institutions of development out of people's everyday affairs. Most of this new activity emerged after the earthquake in 1985 when government was paralyzed and helpless.

Today, demands for self-governance are formulated routinely by the Assembly of Barrios: "How can there be enough water in Mexico City for everyone? Let us build the water tanks, fill them, and then we will distribute the water in our own barrio."

"How avoid gridlock and traffic jams and lower lead levels? No trucks on Mexico City streets during the day. During the night food can be brought to central markets in each of the barrios and then hauled from there to neighborhoods by pushcart."

In these barrios, there is an increasing number of places where the police are barred because they are considered a menace.

Now there are even demands for the self-management of their own shit!

These are practical indications of a people understanding the alternative to a concept of development which has thrown the whole nation into a debtor's prison. Self-management of genuinely basic needs is what occurs here. Such a phenomenon has no legitimacy in the Brundtland milieu.

**Gardels:** So, new forms emerge "tragically." They are invented out of the ruins of development.

**Illich:** Some novelists, like Doris Lessing in The Fifth Child, have a sense of what is emerging in our future, of what kinds of interrelationship are possible in the rubble. There is a sense in her writings of the frightening beings who have survival capacity.

Our difficulty is finding a language to speak about this alternative, once we acquire an ear and a way of seeing how, contrary to professional wisdom, people with unmet basic needs thrive in new forms of conviviality.

It is fascinating to discover the nature of this shared experience of outsiders in post-earthquake, pre-ecological, apocalyptic Mexico City. There is something here of the taste of the gang, the ragpicker, the garbage dump dweller, but living in a very unusual way. Perhaps we can think of them as the technophagic majority of the late twentieth century. They comprise, for example, half of Chicago's inner-city youth, defined by educators as drop-outs, two-thirds of Mexico City's dwellers,

people whose excrement is improperly treated. These are people who feed on the waste of development, the spontaneous architects of a post-modern future.

**Gardels:** An image from American popular culture comes to mind, that of the road warriors in the movies about the survivors of a post-nuclear age.

**Illich:** These survivors are guilty of the crime of "social disillusionment"; they reassert the unsquashable with the chilling character of the gang. They are communities which have no diplomatic consistency; their experience is thus barred from the Brundtland discourse. In the terms of the public debate, these outlaw organizations of the unsquashable find no recognition, except as recalcitrant clients who are needy.

Yet, as renunciations of the future, they somehow show the way forward. Their willingness to engage in communitary exercises outside of development makes us smile about the pompousness of our own certitudes, about our dependence on professional opinion to plot humanity's next step.

The experience of these ragpickers suggests a time other than that of development. And studying these groups, like digging into the history of ideas, can lift us from our assumptions, but with no guarantee of what the result will be.

**Gardels:** Do you have any experience of specific "results"?

**Illich:** Yes, take this rural barrio on the slope of the Sierra as an example. For a time that reaches back before Cortez, life here was organized around the blue tortilla. A certain Indian corn seed had come into existence, made up of at least 150 distinguishable genetic strains. It was uniquely adapted to this micro-climate, with its own variation of wet and dry periods. When ground into meal, it presented the characteristic blue color of local flowers, different from those ten miles east or west of here. Religious festivals, marriage customs, ovens and diet were shaped by that crop. Then came Dr. Borlaug's "miracle" seed, with government subsidies for fertilizer, insecticides and fungicides. For a few years, some fields produced fantastic returns. But then within less than a decade, the pre-Columbian terraces that cover this region, left uncultivated, were all washed out. Young people now live by seeking work in town, repairing old cars or trying to sell household appliances. The tools and donkeys of their fathers have disappeared. The changes occurred so rapidly that the festivals are still celebrated - for the seed god of a lost food, a forgotten culture ...

This is what interests me most. By what method do we rediscover lost ways and lost times as a way of re-entering and re-framing the discourse after development?

I'm reminded of some lines in a poem by the Chilean, Huidobras:

I'm a little bit moon and a little bit traveling salesman. My specialty is those hours which have lost their clock.

The experience of the dropout majorities enables us to look behind the mask of our certitudes about the future to recall the lost hours and places. It enables us to look at the present as a social construction produced by metaphysical-like crystallizations embodied in such terms as need and development.



Another image which comes to my mind is Lewis Carroll's Chesire Cat. When it disappeared, only the smile remained. Only humbled laughable man stands behind the certitudes.

How could we possibly ask the next Commission on the Future of Sustainable Development to comment on that?

**Gardels:** What you've said here indicates a path beyond development outside the dominant discourse now shaped by the Brundtland Commission. But what is the next move within that discourse?

**Illich:** Let me start over by looking back to the social construction of certain defining frames of our present situation.

Originally, utilitarianism was conceived as an attempt to give the most good to the largest number of people. Then, sometime in the 1970s, it came to mean the least pain for the largest number of people.

This medical metaphor illumines the next step after Brundtland, a step we have already taken, namely, not the greatest good, nor the least pain, but the greatest pain management in terms of the global environment: The right to pain management in ectopia. That's what I see after Brundtland: Managing the mining of the commons, not restoring the common environment to culturally bounded, politically sanctioned limits to growth; management of man from sperm to worm, including rates of reproduction.

Administrative-intensive global ecology is the clear next step within the development discourse.

**Gardels:** In a post-modern purgatory, this pause in time when we have forgotten the past but no longer believe in the future, might the construction of an ecological cosmology that places man back in the constraints of the human condition emerge? Might that be the new universal that ties this fragmented planet together?

**Illich:** I cannot conceive of a metaphysical ecology. I have neither the heart nor the brain to let a Green Khomeini become something tangible for me.

The concept of environment is deeply related to the concept of life. And in the manner of spime method, I do not believe that there is a single concept at this moment which deserves denunciation as intensively as the concept of life.

The concept of life in the West results from a perversion of the Christian belief according to which God, who is Life, became man. From this promise, this offer of a gift, this mysterious opening to what lies beyond, a this-worldly entity was derived. Life became an immanent idol, an all-purpose polemical label, a conceptual justification for boundless acquisition in this world. Indeed, life permits the formation of a foundational category, separate from the cosmos, for possessive individualism. From there it is easy to see the leaps to the struggle for life against nature, other individuals and society.

In this construction, life cannot be understood apart from the "death of nature." In a continuous thread that runs back to Anaxagoras (500 - 480 BC) and up through the sixteenth century, an organic, whole conception of nature was a constant theme in the West. With varying nuances and emphases, nature was seen as alive, sensitive, at times animistic, correlated with human action.

With the Scientific Revolution, a mechanistic model came to dominate thinking - nature was then seen as dead. This death of nature, I would argue, was the most far-reaching effect of the radical change in man's vision of the universe. But an insistent question then presented itself: How do we explain the notion of living forms in a dead cosmos?

The modern substantive concept of life thus appears as a kind of mindless movement to fill the void.

Now this factitious character of life appears with special poignancy in the ecological discourse. Here, ecology is no longer the correlation between living forms and their habitat, and between one another. Rather, it signifies a cybernetic system of separate entities that defines, regulates and sustains itself as a unity. Life is now equated with this system and is the abstract fetish that overshadows it.

The self-regulating system of life thus becomes the model for opposing industrial destruction.

The respected limits of the commons are thus dissolved into a concept of the ecosystem which, through multiple feedback mechanisms, can be regulated scientifically if the inputs are chosen properly by intelligent man.

Thus, this idea of life leads to an administrative-intensive ecology. In an attempt to come to grips with Nemesis, man expands his measureless presumption to the management of the cosmos!

It is a very seductive idea; it simplifies everything; it makes us certain of life. In the name of nature, ecology idolizes Promethean man.

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