

Implications of the Second Law of Thermodynamics

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I'm going to deal with a subject that may be of premier importance this morning.

No doubt, the law of change is universal in nature, as was so well pointed out by Heraclitus of old. The eternal hills are not so eternal, as is well known by all geologists. They are continually changing. Forces of erosion are wearing them down and there may be building forces that are raising them. The point that makes seem eternal is that the rate of change is so slow that within the limits of a normal life very little can be observed, configurations remain essentially the same; but, over the span of time, when we think not simply in terms of centuries but of million of years, we know that the surface of this earth is continually changing—mountains becoming plains and plains being raised into mountains, land sinking into the sea and rising from out the sea. It's merely a difference of time scale. Change is the rule in nature. In fact, not one moment is the same as the moment before in the configurations of nature.

But though change is a law in nature, it by no means follows that change is equivalent to progress. It can be decay, as is illustrated in the eroding of the mountains. Change, therefore, is not in and of itself a promise of something better; it may be something worse. And there are reasons why we should regard the probability of change to something worse as more probable than change to something better. It is superficial, therefore, to view change as, in itself, a merit, a desirable thing when we have control of the processes. The change in nature of which I have spoken is ineluctable, but in the field of human endeavor, there may be forces that are employed to effect conscious change, and these concern us most especially, for such change is not ineluctable, nor is its direction automatically determined. We may by effort effect change that improves in some respects that which has existed before, and yet at the same time produce a great liability that may completely outweigh the benefits that existed before. If change generally tends towards degradation if left to its own natural tendency, and if change in the direction of improvement on the whole is difficult to achieve, it becomes important to consider very carefully what changes should be applied. I would suggest that it is better to change in as small ways as are necessary if the condition in which we are living is viable, because it would be so easy to change in a direction that would not be viable.

Now, with these introductory words, I wish to enter into a problem of premier importance. Let me direct your attention to the second law of thermodynamics. This is a law which states that all energy in the universe tends towards a condition in which entropy is at a maximum. Now, entropy is a physical conception that measures the amount of energy that no longer is available for work. The state of entropy at a maximum would be one in which all processes in the universe would cease. Now, as we know nature from the standpoint of the physicist, energy is concentrated in certain spots in the heavens, or in space, which we know as stars or suns; that from these points, energy is radiated forth out into space toward a condition in which, ultimately, that energy is no longer available for

work. In the process, in the case of our own solar system, radiation from the sun in small degrees strikes the earth. Here, though the action of a certain chemical substance that has been evolved in plants, namely, chlorophyll, a portion of this energy is used for the production of molecules that contain an enhanced energy level. Such molecules become food for many creatures both vegetable and animal, but particularly in the case of the animals. These energized molecules provide food; and in the animal kingdom they are broken down, energy is released, and this makes physical life in the animal possible—including the human being. But the energy, after it has supported the life of the animal, tends to be lost for any further human use, except in so far as further energy from the sun renders the reintegration of further high energy molecules.

Now, we thus see that there is a tendency widely spread in nature, toward a transformation of energy from a high energy level towards a low energy level in which case it no longer is available for work. An illustration of this can be afforded in the case of the snows that are gathered in the mountains that ultimately feed streams which flow down reaching finally into the seas or into lakes that are the lowest level available, as in the case of the great basin country. While this water is flowing downhill it can be intercepted, as man has done by the use of dams and the control of its fall through various generator devices, so that the falling water can be transformed into a useful form of energy known as electricity that can help to run the tools of mankind. But when that water has reached the sea or the lake in the great basin country, it no longer can be tapped as a source of energy. It is while the energy is descending toward that condition of entropy that it can be used. If we extrapolate, we could see that the universe is running down, so far as we know, unless there is an unknown return not visible to us yet as scientists.

Now, we could say that the tendency in nature is towards degeneration. This is observed, and there seems to be no exception to the principle, on the level of physical nature, on the level of the energies known to the physicist. Does the same law apply to that energy which we call life? So far as I can see, life is essentially part of the total energetic component of all nature and that we have no good ground for viewing life as an energy that operates as an exception to the general rule. If so, then we would have to say that the basic change on the level of life, on the level of all creatures, and especially including man, that the tendency here is towards degradation, not toward a rising to a higher and higher level. If this is so, then, the tendency of change, on the human as well as on the subhuman level, if left simply to its natural course and without any intervention from a transcendent source, would be a tendency toward degradation. If the contrary is the case in some instances, then we would have to look for something of another sort that moves contrary to this general tendency. That I shall consider later. But the implication of the assumption that the second law of thermodynamics applies to living creatures is that the general tendency of autonomous change is toward degradation.

How would this, then, apply in the case of the human races? It would imply that human races are not born primarily, as the Darwinians would have us think, as a result of emergence from a lower level, but rather that they are born at a level of high purity and spiritual essence, that in the course of time in its experience in the world, races tend to run down—a state of pure childlike purity in the beginning, becoming in part actualized into various forms of expression in the process of evolution, but at the same time tending

to exhaust an energetic impulse with which the race was born, so that in the long run the race tends to go downhill and ultimately dies at the point of exhaustion of the original creative urge. This would carry implications concerning the peoples of the world of which several are classified as primitive peoples, such as many that were found in the Americas with the exception of certain really advanced cultures in Mexico, Central America, and the western portion of South America, and a portion of the southwest in our own country. We have called these people primitive, and those natives we found in Africa south of the Sahara we called primitives, and so also the peoples in the South Pacific. Then the question would arise, are these peoples truly primitive, or are they the result of a process of degradation? Are they rather approaching the end terms of a racial development? Are they moving from high culture towards something lower and lesser? These I leave as questions. A positive answer to these questions would change our whole evaluation of these peoples. Now, that is just a thought that I'm throwing out at this time. Let us proceed to consider how it is possible that in spite of an assumed tendency in nature towards degradation, yet evolution to something higher is possible.

If the picture presented to us by the physicist were the whole truth concerning the processes within the universe, we would have this condition: an initial stage of energy at a high level, a progressive degradation from that level to a state of maximum entropy. The one great fact in the universe would be a progress toward decay. This would violate the principle of equilibrium, which may be said to be the most important principle present in the Realization which I called the High Indifference. The principle of equilibrium may be stated this way: that the sum of all aspects or parts in the universe produces a resultant which in one sense may be called zero, namely, a state of complete balance. There is thus in it no directedness in the final analysis; however, for a given fraction of consciousness there may appear to be a directedness toward a given objective. Thus, we would say that the picture so far drawn by the physicist is a truth in *Sangsara*, the mode of development known to our present fraction of consciousness. If we were, however, to know the whole truth, we would find that corresponding to this particular movement, there is a movement in an opposite sense that would be available to another phase or form of consciousness so that the sum of the two movements would result in complete balance, a condition which we may represent by zero. This would imply that if there is a sense of movement here in the *sangsaric* field towards degradation of energy in a form where entropy tends to be a maximum, there would be a countermovement where energy would move to a position where entropy would be a minimum.

Now, where would we find evidence of such a movement or of such a counterprocess? There is a tradition that an ancient people, a people suggested by certain of the dialogues of Plato, tapped an energy which they called the "Night-Side." This could well suggest a movement in an opposite sense. In addition, I would suggest that in that zone of consciousness which is commonly known as *Nirvana* or *Moksha*, we have not only a state of release from the *sangsaric* process, that it is a culmination of the search for Liberation, but that in addition it has an energetic meaning; that here we have, mayhap, that counterzone of movement away from the point or condition of entropy at a maximum to a state of entropy at a minimum—a movement of energy from a position of maximum dissemination with incapacity to do any more work, to a position which from our point of view would be akin to the high centers of concentration of energy which we call the stars or suns. If, then, some force or some entities, could tap this counterflow,

there would be a chance for energy moving in the countersense to be introduced into the *sangsaric* universe; and with this, then, we would have the potential, or at least be able to conceive of a potential, for development or progress from lower to higher levels. There are those who have attained to the consciousness of *Nirvana* who have not at the same time withdrawn from the field of *Sangsara*; and what I wish to suggest is that through these, energy in the ascending or building sense is brought into the *sangsaric* universe, and thus we have the basis whereby development from a lower to a higher condition, from a lower energy level to a higher energy level, can be introduced into the total picture.

Those who perform this function have been known as the Illuminati or as the Redeemers. Now, this would paint for us a different meaning for the word 'redemption'; redemption thus becoming not simply a being saved from sin or being liberated from the domain of action, but rather being liberated from the natural tendency towards decay or degradation and thereby producing a reverse movement of ascension to a higher level of consciousness. It is therefore suggested that the event of evolution to something more, something higher, something that develops a higher energy level of culture, and so forth, is possible because of the intervention of this countermovement.

There is a problem here. From our ordinary point of view, we would conceive of this as a difficult process of ascension from a low energy level to a high energy level; but what I would suggest is that this is the way it appears from the standpoint of the fraction of consciousness which is all we have in the *sangsaric* field. But that from the perspective of another, an inverse form of consciousness, this is the natural flow. Here the flow that we call a movement from the high to the low, a downhill movement, from the standpoint of that inverted consciousness would have an opposite value, and that the counterflow there would be the flow from the depths of space to concentrations of energy, and that that would be as natural from the standpoint of that inverted consciousness as the present descending flow seem natural to our present consciousness. The resultant of the two kinds of consciousness taken together would be an unbroken equilibrium.

The universe would be a continuing fact, not a something that is doomed to inevitable decay. There could be a cyclic process of movement in diverging direction, the resultant of which is always zero—a state of complete equilibrium, but that with respect to any part or aspect of that whole, would be capable of showing movement that is directed, but in some other complementary aspect there would be equally a movement in the opposite direction, the sum of the two always being zero or equilibrium. It would not appear that we can conceive of an absolute development that would have direction. If we conceive of there actually being a whole, and that all movement is contained within that whole, directedness would be a valid concept only with respect to a part, or phase, or aspect of that whole, not to the whole itself. The one word we can say that is valid of the whole itself is that it abides in a state of unbroken equilibrium.

Now, from these conceptions certain practical consequences follow: that if the process within the universe of objects, or the *Sangsara*, was all that we had, if we let nature take its course, then we are on the road to degradation, decay, and death. What offsets this is the intervention of something which we may call descending from a transcendental source.

We can now see why yoga in the sense of an ascension to a higher level calls for conservation of energy and the exertion of effort. One does not attain the true yoga of the right hand path by letting go and permitting nature to take its course. On the contrary, one ascends the mountain, or swims against the stream, as we see it here in this outer field, and so reaches an objective which is higher rather than one that is descended. This gives us the rationale of why the conservation of our creative energies is so important on the path of the true yoga. We move against the normal process of descent, and all of this calls for discipline.

As one ascends the hill which symbolically represents the process of ascension in consciousness, for a certain distance it is all a matter of labor, of effort against that which would take place if one let go as it were. But there is a point where one comes into the action of another field of energy where no longer does one have to put forth effort to ascend, but ascension becomes spontaneous. In reporting the experience of this, I used the two conceptions of *gravity* and *levity*; that in the beginning one struggled for a long time against gravity—gravity representing all of the natural tendencies; but finally at some exalted point, the individual and I came under the action of a counterforce where ascension was the easiest thing. Later, when there was a chosen descent in consciousness, there was actually a struggle against the force of levity, against the force that would take one away from objects towards space. One almost had to crawl downhill, holding onto the rocks in descending just as ordinarily we must hold onto the rocks to ascend. This fits the conception that there is another or inverse force in the depths of being so that the yogin has tapped something which you may call the inverse movement.

Now, I suggest that it's from the tapping of this inverse movement and the bringing into the outer world of the fruits of that, that thereby only is improvement of the condition of this humanity possible. In a word, only because of those who have chosen the path of the Redeemers is it possible for this humanity to rise from its low estate into something better. In a word, only by the action of these do we have an actual evolution towards something better, something higher, something more luminous than what was. Therefore, I would say to him who seeing the unhappy lot of this humanity and would seek to do something about it, if you wish to effect something more than mere solace or alleviation, then the only way is by entering the path of yoga, reaching the ultimate point of Liberation, and then turning back toward the world drawing with him the counterenergy and projecting it into the world field. All other effort leads only to a delusion and must result in failure.

A further implication is that all of those movements that simply imply an abandonment of all discipline and the letting go of oneself into the current of things are movements that lead to the state of degeneration, decay, and real death. Seek therefore yoga, and having attained the point of Liberation, bring back from that other energetic field that which can reverse the process in the decaying of humanity, and thus bring about its redemption. There is no other way that accomplishes real transformation. All other courses can only solace and alleviate, but cannot Liberate.