

These questions need and deserve much more study. But a social evolutionary jump is such a large-scale process that we can at least examine its inner workings, as Kuhn did for the intellectual jumps. Once started, it has an energy and logic of its own, like the actions of a mob; but just as in that case, there is a chance that intelligent participation or intervention can help direct these energies toward creative and fruitful rather than destructive results.

We can see much of the structure and dynamics of the world transformation through which we are now passing. It is currently reaching its most acute phase, but its roots go back a long time. Atomic energy and space travel and television were not reliably predictable very much in advance, but we now see that they were nevertheless almost inevitable consequences of the earlier scientific revolution. That revolution in its turn was probably an almost inevitable consequence of printing and the Renaissance, with the rediscovery and transfer of Arabian and Greek analysis and science and scepticism to economic growth centers.

As a result, the chain of causes of our present world transformation has to be transferred back at least to the Crusades. They were what broke open the feudal mold by suddenly generating in Western Europe large-scale organizational demands, new roles and opportunities, travel and trade, and a host of new and imported products and ideas that led to the vigorous new growth of the Renaissance. The Crusades were wildly illogical, and wildly successful, in capturing for the West a sort of New Jerusalem of progress, far more priceless than the city the Crusaders thought they wanted. But at this point in backward analysis, I think we reach the unpredictable Ifs. If one or two saints and leaders had died early, or if the Moors had not come, or had come farther north, it seems possible that medieval Europe might have gone on un-Crusaded and undisturbed for many more centuries, like most of the rest of the world.

If this is so, our present transition to a new world system is the almost inevitable outcome of some very personal and unpredictable acts of creation a thousands years ago. It was downhill all the way. This is the technological imperative, the larger dialectic of history, that seems so deterministic in its onward sweep. Or, as Teilhard de Chardin might have said, our progress toward the Noosphere is like a dammed-up mountain lake, where no one can predict how soon the dam will break. But when it does break, we know the inevitable chain of results as the water carves its channel to the sea. The water in all our lakes of every shapes and size moved finally downhill to the sea of human enlargement.

This idea of a thousand-year chain of developments may seem to contradict the previous idea of the suddenness of hierarchical restructuring. But we have simply shifted to a different time scale. Against the million-year sweep of human evolution since our much earlier jump to fire and tools and speech, our whole technological transformation, even if we go back to the Greeks, is essentially instantaneous. But the present acute culmination of this transformation with order-of-magnitude technological and social jumps all over the world, concentrated into a ten to thirty year interval, is sudden even compared to a human life span.

Can we—that is, can the human race acting with its full resources of knowledge and intelligence—predict or direct the course of these vast and apparently inevitable changes in our systems? As with a flood, prediction begins to be easy and direction hard. But if direction is possible at all, it will only be possible with much more intensive analysis of these phenomena. And it will need urgent and purposive new scientific and social research and development if we are to acquire the new order-of-magnitude powers that we need to head off our crises and channel our changes before they destroy us.

For the stresses that precede hierarchical jumps, in spite of their push toward larger integration, can also be destructive and even fatal, as we see in psychotic episodes and the suicide pacts of lovers. The old structures resist, the subsystems respond in the wrong way, and stabilization mechanisms may fluctuate wildly from over-rigidity to complete collapse. Thus, our nuclear armaments today, part of the larger dissonance that precedes a world system, may be fatally unstable for the whole human race unless we introduce adequate new stabilization mechanisms before they reach the last great escalation.

In this great transformational crisis, therefore, the alternative to large scale determinism might simply be large scale instability. Our latitude for decision and control of our future may be small indeed. Can we achieve a nuclear stabilization in time? Can we mobilize the necessary intelligence and energy for self-structuring all our other great changes? Can we understand this greatest hierarchical restructuring of all time and its dynamics and scope and direction well enough to find its focal points of control?

These are the crucial questions of the next few months and years. Only if we find positive answers to them will we be able to shape the new world structures toward which we are collectively moving so that they will begin to satisfy the deepest human needs and desires of all mankind instead of destroying us all.

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