ALFRED NORTH WHITEHEAD'S PROCESS THOUGHT AND RELATED IDEAS IN THE WORKS OF TEILHARD DE CHARDIN, BRIAN SWIMME, AND THOMAS BERRY

By Herman Greene

Alfred North Whitehead was a British mathematician, logician, and philosopher. His early work, as a student and professor at Cambridge University, was on mathematics and logic. The second period, 1910-24, when he had appointments at University College London and Imperial College of Science and Technology in London, he concentrated on the philosophy of science. The last period, beginning in 1924 and during which he taught philosophy at Harvard, he concentrated on metaphysics.

Whitehead came at his metaphysical reflections through the world of mathematics and physics as they developed in the first part of the 20th century, and also his knowledge of Western philosophy and theology. He sought not to understand a grand narrative, but to understand the nature of reality and to explain in categorical terms how everything comes to be. In his most important work, *Process and Reality: An Essay in Cosmology*,[1] he described his task as that of "speculative philosophy," which he defined as "the endeavor to frame a coherent logical necessary system of general ideas in terms of which every element of our experience can be interpreted."[2]

The framework of ideas he developed has become known as "process philosophy" and also "the philosophy of organism." It has been called a neo-classical metaphysics because it undertakes to frame a general metaphysical system in the manner of classical metaphysics, but does this in a new way. There are several elements of this thought system as expounded by Whitehead that are of particular importance as follows:

> *First, reality in all of its dimensions is creative.* This contrasts with the view that reality is determined by random events or change through locomotion (cause and effect determination resulting from substances in motion and controlled by the laws of motion).
>
> *Second, the essential character of reality is "becoming" or "flow" rather than "existence" or "stasis."* This is related to the concept of "cosmogenesis," the time-developmental character of the universe, developed by Brian Swimme and Thomas Berry in *The Universe Story*[3] and the understanding of which, they believe, involves the most important intellectual shift of our time.[4] In the past, according to Swimme and Berry, the universe has

[1]Alfred North Whitehead, *Process and Reality: An Essay in Cosmology,* corrected ed., ed. David Ray Griffin and Donald W. Sherburne (New York: The Free Press, 1978).

[2]Ibid., 2.

[3]Brian Swimme and Thomas Berry, *The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era* (San Francisco: HarperSanFrancisco, 1992).

been seen as existing in a "spatial mode" as opposed to a time-developmental mode.[5] The universe viewed in a spatial mode was constant, unchanging, and ever-existing. Actions taken could not irreversibly affect the universe and its resources were seen as limitless.

Third, the fundamental element of reality is not "substance" but "experience" - everything comes to be through experience and everything has both a physical and mental dimension. This corresponds to Teilhard de Chardin's and Swimme's and Berry's thought that the universe has had a psychic-spiritual dimension from its beginning. The mechanistic view of the universe that became predominant in the modern era has seen the universe as material only, a collection of objects for humans to manipulate. When the universe is seen as having a psychic-spiritual aspect, it becomes a communion of diverse, self-organizing subjects.[6] Such an understanding of the universe would affect our science so that the study of organisms would not only focus on their measurable characteristics, but also on developing a feel for the organisms and their places within the larger community of life.[7] This feel for the organism would be of equal importance with the data one could collect about them. Such an understanding would also affect our understanding of the creative interactions of subjects that shape reality and serve as a check on our tendencies to introduce controls that inhibit the dynamic processes of nature. Such an understanding also would permit a reintegration of the humanistic, cultural and religious concerns of the human community with the scientific, technical, controlling aspects as a clearer understanding was reached of the ultimate and essential nature of reality as involving both a material and a psychic-spiritual dimension.

Fourth, every individual experience is influenced by the experience of everything else in the universe throughout its history. This is the philosophy of organism, which means that the universe has an organic character and everything is interrelated, experienced and remembered (valued). These relations are not only external (physical), but also internal (experiential). This corresponds to Swimme's and Berry's thought that the universe has a narrative dimension in which every particular reality is a part of a cosmic drama. It also corresponds to Berry's emphasis on establish an intimate rapport with the natural world.

Fifth, societies of multiple individuals units of experience have synergistic capabilities. This is the sociality principle and is consistent with Teilhard de Chardin's observation that the universe is moving in its evolutionary sequences toward greater complexity (toward more complex societies of individuals) and this in turn is leading toward greater capacities for consciousness. Swimme and Berry have also observed there is a tendency in the evolutionary journey of the universe to increasing complexity and consciousness.

---

[4]Ibid., 2.

[5]Ibid.

[6]Ibid., 71-78.

[7]Thomas Berry, "Conditions for Entering the Ecozoic Era," *The Ecozoic Reader* (Winter 2002).

Sixth, every creative experience of becoming is also influenced by novel possibilities and the individual exercises a choice in realizing those possibilities. Thus, each individual and consequently each organism (or society of individuals) has some freedom and is in part self-determining. This corresponds to Swimme's and Berry's concepts of the differentiation of individuals and also the self-organizing characteristic, or *autopoiesis,* of individuals.[8] While there is a dynamic tension between part and whole in the universe, each individual in the universe is unique, ultimately significant and of intrinsic value, and the health of the universe and every society rests on the health of individuals.

Seventh, the future is undetermined and open and exists only as a set of possibilities that are not realized until chosen. In this understanding, the future is not mapped out by either physical causality or divine causality, but is open to creative activity. Thus, there is always cause for realistic hope and always the call for conscious, responsible, creative participation of all individuals.

Eighth, the character of existence is adventure and a quest for beauty, complex order and harmonization of contrasts of feeling. The ideal state of being then is not changelessness or being at rest, but creative adaptation and participation in a quest for beauty and harmony. Thus, the universe has a teleological, or future/end-seeking, dimension.

Ninth, reality is a pulsating sequence of events each building on the other; thus events do not occur in time, but rather create time. In Whitehead's understanding, each new event in actualizing itself apprehends those events which precede it and takes into account novel possibilities of the future in deciding its final form, at which time the event becomes an object for new emergent events. The present is perpetually emerging out of the past, but is never merely a repetition of the past. It is the emergence of these events that give time its sequential character, and thus it can be said that the events create time and time is a measure of a period of the sequential transformations resulting from the occurrence of such events. It follows that time is necessarily uni-directional from past to future. This thought is consistent with the Swimme and Berry's observation in that the universe is emergent, an evolutionary sequence of irreversible transformations.[9] Irreversibility has important implications for our actions. We cannot go back in time to recapture a lost opportunity and our actions in the present are of lasting significance. For example, when a species vanishes, it cannot be recovered. Note also that Whitehead's understanding of reality as creative process (a sequential occurrence of events building on each other) has philosophical significance for understanding that perishing and death are necessarily a part of reality, just as succession and new life are.

---

[8]Swimme and Berry, 75-78.

[9]Ibid., 70-71.

Tenth, the universe is guided by a pervasive, integral cosmic intelligence or consciousness that has both a primordial character of love by which everything is valued, and a consequent nature by which everything that comes to be influences this intelligence and becomes a new source of possibilities within the limits of the universe as it has come to be at any given time. Thus, in this understanding, the guiding intelligence of the universe is not conceived as something that exists independently of the universe, but rather as pervasive reality within which every part of the universe exists and which brings unity and purpose to the universe in its cosmogenetic journey. This cosmic intelligence has had a variety of names from the Tao, to the Buddha nature of the universe, to God, to the implicate order, and many more.

Eleventh, the cosmic intelligence does not act through coercion, but through persuasion and lure of feeling. Thus, the cosmic intelligence does not control the universe, rather it and each individual are co-creators, and individuals have a capacity for free choice for good or ill.

Twelfth, spirituality and creativity are related concepts and they always occur in actualizing events. Therefore, the locus of spirituality is in the creativity of actual existence not in some higher realm; spirituality is not disembodied, rather it exists in the process of things coming to be; and the cosmic intelligence is ultimately grounded in the evolutionary, creative adventure of the universe.