

JUNG: THE PRINCIPLE OF SYNCHRONICITY
AND CONTEMPORARY SCIENCE

RUNNING HEAD: Jung, Synchronicity, Science

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Introduction

An important principle of Jungian psychology involves synchronicity or meaningful coincidences of inner and outer events. The idea of synchronicity is not new, but was well known in earlier times, including by the natural philosophers of the European Middle Ages. They referred to such experiences in their theory of *correspondentia* that includes the comprehensive idea of the *sympathy of all things*. Thus, according to Hippocrates (as reported in Jung, 1975c, p. 490), “There is one common breathing, all things are in sympathy. . . .” linking the smallest particle in correspondence to the whole. Jung brought clarity to understanding such experiences, differentiating authentic synchronicity from causally-induced events of all kinds, including magic causality, where a chain of events are initiated through an esoteric ritual of some form. In Jung’s elaboration of the concept, which is based on a unitary world of multiple parts, he also brought the experience, which is more common than is generally believed, into the contemporary realm of ideas, along with the immense value of bringing understanding of the psychological, spiritual and scientific implications. In this section, I discuss synchronicity in terms of contemporary science, notably Relativity Theory and Quantum Physics, while referring to Jung’s visionary experience in 1944.

Synchronicity and General Acausal Orderedness

Pondering over a near death experience of one of his patients, Jung wondered “whether there is some other nervous substrate in us, apart from the cerebrum, that can think and perceive, or whether the psychic processes that go on in us during loss of consciousness are synchronistic phenomena, i.e., events which have no causal connection with organic processes (ibid, p. 509).” He observed that the nervous substrate in question could be the sympathetic nervous system, which is not paralyzed during a coma and, therefore “a possible carrier of psychic functions (ibid, p. 511).” Reflecting on the fact that bees have a dance language that communicates to their beginner fellow-bees the discovery of a feeding place along with the direction and distance, points to the “existence of transcerebral thought and perception” that, Jung postulated, may or may not be unconscious, but is connected to the ganglionic system, a nervous substrate like the sympathetic system (ibid, p. 511).

He also considered that “On the organic level it might be possible to regard biological morphogenesis in the light of the synchronistic factor,” referring to a theoretical position that regards form to be “supraordinate to the living organism (ibid, p. 512).” Jung was also interested in the phenomenon of radioactive decay, which physicists regard as transpiring without cause, in the psychologist’s language, as a case of acausal orderedness. All this made Jung conclude that synchronicity as narrowly-defined was “a particular instance of general acausal orderedness” a more profound and wide principle that embraces “a priori factors

such as the properties of natural numbers, the discontinuity of modern physics, etc (ibid, p. 516).” Jung differentiated these *a priori* factors from synchronicity in that he regarded the former as “*creative acts*, as the continuous creation of a pattern that exists from all eternity, repeats itself sporadically, and is not derivable from any known antecedents,” and the latter as “acts of creation in time (ibid, pp. 517, 518).”

Psyche, Space-Time, Relativity Theory, Quantum Physics and Synchronicity

In a letter written on February, 1952, Jung (as reported in Adler, 1975a, p. 45) speculated on the nature of the psyche, the problem of space and time and synchronicity regarding *psi* phenomena, but applicable to synchronicity in general. This can be understood in reference to Jung’s (1965, p. 296) major *coniunctio* vision reported in *Memories, Dreams, Reflections*, where he existed in his timeless primal form, everything having been stripped away, and “past, present and future are one .” His experience is, in fact, similar to Relativity Theory’s understanding of the nature of reality as a four-dimensional continuum of “space-time,” where everything which “constitutes the past, present and the future, is given *en bloc* (Louis de Broglie as reported in Fritjof Capra, 1977, p. 172).” In the normal experience of duality, space-time is, in contrast, subjectively experienced as something like a slice of space-time reality through sequentially positioned aspects of the physical world.

Presumably Jung experienced 'infinite intensity' or unextended intensity above space and time, an ecstatic timeless state, where there, nonetheless, was "eternal movement, (not movement in time) (as reported in Adler, 1975b, p. 358)." He hypothesized that the psyche be understood as "unextended intensity and not as a body moving with time. In the previously mentioned letter, Jung (as reported in Adler, 1975a, p. 45) went on to say "One might assume the psyche rising from minute extensity to infinite intensity and concluded that "psyche" *per se* therefore "= highest intensity in the smallest space." In order to explain the psyche's involvement in space and time, he suggested that "the brain might be a transformer station" in which the infinite intensity of the psyche proper is transformed and extended over space and time through "perceptible frequencies" or "extensions (ibid)." "Conversely," Jung argued, "the fading of introspective perception of the body explains itself as due to a gradual "psychification," i.e., intensification at the expense of extension (ibid)."

By way of explanation, "frequencies" involve movement, including, emotional expression, thought movement, in fact, movement of the entire psychic apparatus. One could again refer to Jung's vision where he saw eternal movement although not in time. The implication is that movement is eternal and essential to the psyche proper and may be translated by the brain as "frequencies" over space and time. These speculations therefore offer an explanation for synchronicity. If psyche=highest intensity in the smallest place, i.e. it is, in its essence, "timeless" and "spaceless" and beyond the causally

oriented space and time coordinates, then, it is, potentially everywhere through movement, which is to say, “elastic” “in the space-time continuum, in which space is no more space and time no more time (ibid, p. 44, 45).”

Jung’s experience and speculations on synchronicity are similar to quantum theory with regard to light and the electron that exist as waves or vibrational patterns of frequency oscillations extended over space-time, in the former case the universe and beyond and, in the latter, in the atom. The paradoxical reality of the atom is that, at that level, matter appears as both particle and wave. A sub-atomic electron can appear either as an uncertainly localized particle or as a wave, depending on the electron’s interaction with the observer. There is an obvious similarity here between the dual particle and wave reality of the electron and Jung’s intense and localized visionary experience along with his intuition that psyche=highest intensity in the smallest place that extends itself via “perceptible frequencies.” Moreover, at the sub-atomic level, matter only shows “tendencies to exist” where the probabilities are defined in terms of interrelationships (Fritjof Capra, 1977, p. 56.) This puts the subject or observer in the centre of the equation with regard to physical reality, psychological healing and synchronicity.

In synchronistic experiences, not only does the psyche proper move, but so does matter, to the point that matter and psyche act like two sides of the same coin or, more simply conceived, psyche can be understood as having a material dimension. Cracks in the edifice of Newtonian physics began with Max Planck,

who discovered that heat radiation from hot pieces of metal exists in discontinuous discrete units and not in a continuous gradation of levels. Newtonian physics had assumed a continuity of energy levels, whereas Planck showed that energy hops discontinuously in step by step jumps called the *quantum*, defined numerically by a value called Planck's constant. Nils Bohr then discovered that electrons circle around the nucleus of an atom according to whole level multiples of a tiny energy level, which turned out to be Planck's constant. Again, energy was discovered to be discontinuous, yet functions with "just-so" regularity, indicating a mathematical structure to the universe. Quantum mechanics also discovered that there was also a principle of motion that was not accounted for by Newtonian physics. Once an electron is energized from without, the trajectory of its movement could not be predicted as it acts irregularly and indeterminately. Both the course of the electron and the color of the light it emits, which depends on the wavelength and the vibrational speed of the electromagnetic field, are causally unpredictable.

The indeterminate nature of energy at the heart of matter and the synchronistic principle behind spontaneous psychological healing means that they both primarily function according to acausal laws. Jung and Pauli came to the conclusion that what distinguished synchronicity from the unpredictability of the trajectory of the electron was that synchronicity always involves meaning due to the significance of the message attached, while the indeterminate nature of matter does not. They both agreed, however, that the discontinuous and

irregular nature of matter opens the door to the possibility of synchronicity. In synchronistic experiences, the “external” physical world always seems to move, often in truly uncanny ways. Synchronicity is Self-directed and purposeful teleology, and always comes with a message, the understanding of which meaningfully carries one into the future.

Space-Time-Causality and Synchronicity

Jung added synchronicity to the classical triad of space-time-causality to give a *quaternio*, and the possibility of judgment based on wholeness. Jung and Pauli eventually agreed on another *quaternio* that more fully satisfied both the postulates of modern physics and psychology. In this case, the coordinates included Indestructible Energy and Space-Time Continuum, on the one hand, and Causality and Synchronicity, on the other. From a psychological perspective, the underlying *tertium comparationis* are archetypes, which are psychoid factors that embrace and transcend both psyche and matter. Synchronicity involves the activation of archetypal layers of the unconscious, which can be conceived as being contained in a creative cosmic center.

According to Jung, psyche and matter both find their source in the *unus mundus*, or one world, an underlying unifying matrix and unitary, non-dual reality behind and involved in the multiplicity of separate and distinct parts that becomes evident in synchronistic or meaningfully-related events. Since archetypes are psychoid they are not only experienced intuitively and in the inner world of fantasy, dreams and visions but also in the external world itself. This experience

of the nature of Being parallels that of the *Isha Upanishad*, which “insists on the unity and reality of all the manifestation of the Absolute,” where Brahman is both “the Being and all becomings (Sri Aurobindo, 1970, p. 636).” Thus, the unus mundus can be understood as a unified field that embraces both the psyche and the world of matter, while being the source of new creations in time. Psychologically, this means that genuine experiences of synchronicity are both essential to spontaneous acts of healing and integrally instrumental to the creative transformational process of individuation.

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