

# SUPERWAVE REALITY\*

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Here I present the elegant reality that is the natural universe. All existence is waves – *only* waves. This entirely new understanding of waves – what I call SuperWaves – is the single universality that generates the entire natural universe of motion, of order and of matter, space, and time. SuperWaves is not a theoretical model or mathematical law *about* nature; nor is it a hidden reality *within* nature; it is the simple reality that *is* nature.<sup>1–4</sup>

## 1. Motion is SuperWaves

All motions and all changes are *only* waves. To create complex features in an existence that is comprised only of waves, waves must wave. All changes are changing. Waves do not move in straight lines. Waves move only within waves and contain waves, as an inherent continuum of wave motion in wave motion. This new understanding of waves as SuperWaves is an entirely new understanding of motion. Constant uniform, or linear, motion does not and cannot exist. Waves, which *are* in motion on one scale, are *in* motion, moving up and down on another scale. This is an innate continuum of nested scales within scales, unbroken fractals within fractals.

Linear frequencies, linear amplitudes, and linear interference patterns of superposition do not exist because nature is SuperWaves. Rather, in SuperWaves, smaller waves repeat in non-linear frequencies, climbing up and down the trajectory of the larger wave. In turn, the larger wave is moving with its own progressively changing frequencies and amplitudes within a yet larger wave – ad infinitum. Frequencies and amplitudes can now be recognized as existing as a seamless continuum, generating in all directions within and across scales.

## 2. SuperWaving Motion is Order

The order of nature exists because of the unbroken fractal order of SuperWaves. Towards the peak of the carrier wave, spiraling waves are accelerating and are most concentrated. The peak contains the highest super waving frequencies and amplitudes of inner waves, whose stability is maintained at a maximum by the peak of the carrier wave. The reverse occurs toward the trough of the carrier wave: the frequencies and amplitudes of the inner waves decrease; they spread out and disperse in all directions as change and become relatively unstable, susceptible

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to perturbation. As SuperWaves are the stuff of nature; and as SuperWaves are intrinsically self-similar; we can now understand why nature is fractal in form, at all scales. Nature exhibits only relative degrees of order; absolute chaos does not exist.

The puzzle of action at a distance, or non-locality, is explained by the SuperWave order of nature. A change in the form of a carrier wave will cause changes in the form of inner waves, simultaneously within and across scales. The reverse occurs as well. Changes of inner waves can simultaneously change the form of the carrier wave, depending on the degree of stability of the inner waves. I call this simulcausality.

Science has looked for absolute causality, or determinism, but has failed to find it. Redefining action at a distance as simulcausality explains this failure. The reason is that waves waving are always changing, never being precisely circular or linear; as they are constantly influencing each other, they cause further change. Nature exhibits no invariance or absolute constancy. This explains why all linear measurements are inexact and approximate, and ultimately exhibit non-linear complexity.

Science separates frequencies and amplitudes as linear dimensions, and then superimposes them to explain interference patterns. From the perspective of SuperWaves, interference patterns are explained by the (non-linear) continuum of amplitude and frequency, which is the same phenomenon as action at a distance and causality, which is simulcausality. This unbroken fractal motion of SuperWaves generates the order of nature.

### **3. The Order of Superwaving Motion is Matter, Space, and Time**

The compression of waves in the peaks of SuperWaves exhibit confined stability which manifests as matter, at all scales. At the smallest scale, matter is the confined compressed wave packet, termed a particle. At higher and higher scales of SuperWaves, the compression of clusters creates the stability that is an atom, a molecule, an organism, an ecosystem, Earth, the Solar System, our galaxy, galaxy clusters, to the whole universe itself. At each scale, SuperWaves organize and bring relative coherence to the inner waves, in seamless fractally nested jumps – this is relative order. Conversely, the gaps between particles or object masses that we presently perceive as space are regions of SuperWave dispersion – this is relative disorder. Matter and space are therefore different manifestations of the same SuperWave continuum; this applies to matter and space on all scales.

The forces of nature – the weak and strong forces, electromagnetism, and gravity – are also manifestations of SuperWaves. Gravity and the strong force are the attractor peaks of carrier waves, or matter, with gravity being at a higher scale than the strong force, fractals of each other. The weak force and electromagnetism are also fractals of each other, being the repulsion or dispersal of waves which is space.

The understanding of SuperWaves gives a new understanding of how organization comes about in nature. Matter is described above as the relatively stable compression of waves at the peak of a SuperWave. The process of waves waving within waves, moving toward the peak in continuous scalar jumps, is what science calls the emergence and evolution of organizational order. The process of dispersal



and flattening of SuperWaves, also occurring as inherent continuous jumps, manifests as Cartesian order of parts and what science calls thermodynamic entropy. Just as evolution and entropy are processes of change as a result of moving towards and away from the peak, so too is time the outcome of waves waving. Waves waving is change, the irreversible process that is time. Time is perceived differently, depending locally on the scale of waves waving. SuperWaves is matter, space, and time.

#### 4. Conclusion

Science has perceived nature to be a universe of matter in motion, governed by mathematical laws of order. In reality, nature is SuperWaves, whose motion is the order of the universe that is matter, space, and time. The recognition of the SuperWave universe allows for the investigation and understanding of the individual parts in the true context of their indivisible collective wholeness. The scientific, mathematical laws of nature are in fact partial abstractions to a linear ideal of the SuperWaving order present in different scales of the universe.

SuperWaves provides a new understanding of how to go about understanding the universe. The received understanding of the universe is that it is too complicated to understand all at once. Therefore, the scientific method is forced to try to understand nature piece by piece. In other words, science treats nature as if it were discontinuous. Investigating nature from this perspective means that inherent continuity cannot be identified. However, from the perspective of SuperWaves, the universe is recognized as being seamlessly and exclusively a wave universe in which everything is connected to, and affects, everything else all at once while everything is changing. This order, the inherently continuous pattern of motion, is the true indivisibility (a-tomos) of nature. The universe is the manifestation of this order, neither random nor uncertain. The recognition of the SuperWave universe allows for the investigation and understanding of the individual parts in the true context of their indivisible collective wholeness.

The universe is ultimately not a material universe. In reality the universe is a motion universe, where matter is a consequence of wave motion. How the universe works is what the universe is made of. What remains to be understood is a new recognition of all accumulated and future knowledge in light of SuperWaves. So I begin here by going back to the beginning of all our thinking, all our understanding about the nature of the universe. The universe is simply SuperWaves.

#### References

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