

Science of Meditation

We are aware that the higher the temperature, the greater the energy in a particle, which increases the disorder in the assembly of particles as they are energized. This disorder or complexity has been referred to as the entropy or chaos of the particles. If the matter is cooled to a very low temperature, or for that matter to absolute zero, then the entropy of that matter is decreased and the matter comes down to a zero energy state. The entire mass of the particles behaves as a single one, losing all its characteristics such as shape, charge, and polarization. This is termed BoseEinstein condensation. Particles that follow this pattern are known as bosons. On a slightly more technical note, 'Bose-Einstein' condensation occurs owing to the symmetry property of the wave function of the particles. This effectively means that Boson particles do not mind congregating in the same state as there is no Pauli Exclusion Principle to scare them away. Leaving aside technical nuances and taking cues from this idea, let us examine our brain neurons during meditation. The various thoughts that constantly crowd our minds are the sum of the simultaneous activities of different neurons. Many thought vibrations in the brain, normally in the waking state, are in the highest entropy through continuous stimulation of the neural network. Our five sense organs serve as important pathways for increasing entropy. Closing our eyes while meditating helps us in the process of concentration and minimizes neural excitement. When one concentrates, there is a resultant decrease in the disorder of the nervous system. The synchronicity of a specific group of neurons increases while neural activity is reduced. The entropy of neural activity is reduced considerably in the same manner as matter drops to zero-level energy, approaching the temperature of absolute zero. Neural firing decreases both in amplitude and frequency during our unconscious state of sleep; thus, apparent impossibility becomes possible in our dreams. In meditation, we consciously try to calm down these activities. With the progress of meditation, the neurons become synchronous. When this orchestra becomes increasingly synchronous, the meditator confronts higher and higher levels of absolute truth, and for their profoundly astounding subtleties, scientific instruments will fail to register and detect them. Although our intellect longs for clarity and certainty, our nature often finds uncertainty fascinating.