Open Spirit Lab
France

Entropy

General

"The second law of thermodynamics states that the entropy of an isolated system never decreases over time. Isolated systems spontaneously evolve towards thermodynamic equilibrium, the state with maximum entropy. Non-isolated systems, like organisms, may lose entropy, provided their environment's entropy increases by at least that amount so that the total entropy either increases or remains constant. Therefore, total entropy in the Universe does increase. Entropy is a function of the state of the system, so the change in entropy of a system is determined by its initial and final states. In the idealization that a process is reversible, the entropy does not change, while irreversible processes always increase the total entropy. " (Source Wikipedia)

Entropy in layman's terms

"The **entropy** of an object is a measure of the amount of energy which is unavailable to do work. Entropy is also a measure of the number of possible arrangements the atoms in a system can have. In this sense, entropy is a measure of uncertainty or randomness. The higher the entropy of an object, the more uncertain we are about the states of the atoms making up that object because there are more states to decide from. A law of physics says that it takes work to make the entropy of an object or system smaller; without work, entropy can never become smaller – you could say that everything slowly goes to disorder (higher entropy).

The word **entropy** came from the study of heat and energy in the period 1850 to 1900. Some very useful mathematical ideas about probability calculations emerged from the study of entropy. These ideas are now used in information theory, chemistry and other areas of study.

Entropy is simply a quantitative measure of what the second law of thermodynamics describes: the spreading of energy until it is evenly spread. The meaning of entropy is different in different fields. It can mean:

- Information entropy, which is a measure of information communicated by systems that are affected by data noise.
- Thermodynamic entropy is part of the science of heat energy. It is a measure of how organized or disorganized energy is in a system of atoms or molecules."

(Source Simple English Wikipedia)

Second law of thermodynamics

It is eventually easier to understand entropy with the second law then entropy itself?

"The **second law of thermodynamics** says that when energy changes from one form to another form, or matter moves freely, entropy (disorder) in a closed system increases.

Differences in temperature, pressure, and density tend to even out horizontally after a while. Due to the force of

gravity, density and pressure do not even out vertically. Density and pressure on the bottom will be more than at the top.

Entropy is a measure of spread of matter and energy to everywhere they have access.

The most common wording for the second law of thermodynamics is essentially due to *Rudolf Clausius*:"

> “ It is impossible to construct a device that produces no other effect than transfer of heat from lower temperature body to higher temperature body ”

(Source Simple EnglishWikipedia)

or in other very simple words:

> “ Everything that consists of matter has the irreversible tendency to transform into a lower energy state. ”

or

> “ There are almost as many formulations of the second law as there have been discussions of it. ”

--Philosopher / Physicist P.W. Bridgman, (1941)

Spiritual Entropy

There are several texts about what spiritual entropy could mean. This one makes somewhat sense.

"I speak to your shame. Is it so, that there is not a wise man among you? no, not one that shall be able to judge between his brethren?" (1 Corinthians 6:5)

The word for "shame" in this verse is the Greek *entrope*, meaning "turning inward" or "inversion." It is used only one other time, in 1 Corinthians 15:34: "Awake to righteousness, and sin not; for some have not the knowledge of God: I speak this to your shame." Evidently this special variety of shame is associated with taking controversies between Christian brethren to ungodly judges and also with failing to witness to the non-Christian community. Instead of bringing the true wisdom of God to the ungodly, such "entropic Christians" were turning to worldly wisdom to resolve their own spiritual problems. This inverted behavior was nothing less than spiritual confusion!

The modern scientific term "entropy" is essentially this same Greek word. In science, entropy is a measure of disorder in any given system. The universal law of increasing entropy states that every system tends to disintegrate into disorder, or confusion, if left to itself. This tendency can only be reversed if ordering energy is applied to it effectively from a source outside the system.

This universal scientific law has a striking parallel in the spiritual realm. A person turning inward to draw on his own bank of power, or seeking power from an ineffective outside source, will inevitably deteriorate eventually into utter spiritual confusion and death. But when Christ enters the life, that person becomes a new creation in Christ Jesus (2 Corinthians 5:17). Through the Holy Spirit and through the Holy Scriptures, "his divine power hath given unto us all things that pertain unto life and godliness" (2 Peter 1:3). The law of spiritual entropy is transformed into the "law of the Spirit of life in Christ Jesus" (Romans 8:2). HMM