

THE LAW OF DECAY

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BIBLICAL CLAIMS OF DECAY

The Bible claims that God created the universe (Genesis 1:1: "In the beginning God created the heavens and the earth"). The Bible also claims that God is a perfect God. Soon after He completed the creation He judged it "very good" (Genesis 1:31). This original creation was perfect. It would seem that it was created to persist forever and apparently would have if it were not for the sin of man. With man's sin, however, the entire creation became subject to the "bondage of corruption" and would "groan in pain" (Romans 8). The universe created to persist forever would, as a result of the curse, suffer decay and death spiraling inexorably from created order to disorder. If this is true, evidence of this would be expected to be found in the created order.

THERMODYNAMIC ENTROPY

As scientists have studied the universe they have found certain patterns in the way things work in the universe. These seemingly invariable patterns they name and describe as "laws". The Second Law of Thermodynamics (or the Law of Entropy) is an example of such a pattern. It has long been observed that when a high concentration of something (like heat or a gas) is located next to a low concentration of the same thing, that there tends to be a motion of the high concentration material toward the lower concentration. This tends to lead to a state where concentrations are evenly distributed across the substance. Examples in our common experience abound. Ice cubes in a warm drink tend to melt and lead to a uniform beverage temperature. Fresh water from rivers tends to become more and more saline as it comes in contact with ocean water until there is a single salinity throughout the water. The high concentration of digested food in the small intestine usually causes the food molecules to pass through the small intestine lining and into the blood stream. Each of these processes is an example of the second law of thermodynamics or the law of entropy in action.

One of the consequences of the second law of thermodynamics is that the total complexity of a system tends to decrease with time. Since complexity usually requires a very high concentration of matter and order, there is a tendency for that matter and order to become more like the lower concentration of the substances around it. Over time this tends to reduce the system's total complexity. If the system is closed, which is to say that it has no energy coming into it from the outside, our observation is that the complexity of that system will ALWAYS decrease. The general decay of order indicated by the second law of thermodynamics is quite consistent with the Biblical claims of post-Fall decay. Since the universe is defined as containing all physical energy, there is no physical energy source outside the universe. As a result, the second law of thermodynamics suggests that the total complexity of the universe must always be decreasing. This means that complexity would remain in the universe only if it is not infinite in age. Since the universe has complexity, it follows that the universe is not infinite in age. The universe thus had a beginning. Plus, at its beginning the universe had a complexity much greater than the complexity at present. This is also consistent with the claims of the Bible. As an additional benefit, the Christian God, being all-powerful, is capable of bringing the universe into being. Atheistic

theories for the origin of the universe lack a cause of sufficient power to accomplish the task of producing the universe.

INFORMATIONAL ENTROPY

One of the ways to measure the complexity of a system is by measuring its total information content. Information science is a field of science which studies information and the transferring of information. Information scientists have observed patterns in information studies very similar to patterns found in physics. Just as it seems that total complexity of a system tends to decrease through time (the second law of thermodynamics), so also the total information of a system tends to decrease through time. Also, any time a system comes into existence with a certain amount of information, our observation is that that system had its origin from something which possessed even more information. This would suggest that the total information content of the universe must be decreasing unless there is an information source outside the universe. The current information content of the universe suggests that (like the inference from the second law) the universe had a beginning, and that at its beginning it had an information content much greater than the information content at present. This is also consistent with the claims of the Bible. In addition, the Christian God, being all-wise, is capable of supplying the universe with its initial information content. Alternate theories for the origin of the universe lack a cause for the universe with sufficient information content to accomplish the task.

REVERSALS OF ENTROPY

There are, of course, systems where the complexity of a system increases (e.g. a house as it is being constructed, a car as it is being built, a tree as it is growing). In our experience each of these systems has energy coming into the system from the outside of the system (e.g. food to construction workers, electricity into an automobile factory, and sunlight into the cells of the tree's leaves). Yet, in our experience there is more found than just energy entering the system. We find, for example, that in each case there is some mechanism which converts the energy entering the system into a form necessary for the complexity increase (e.g. the digestive system in humans to convert food to human mechanical energy, machines in a factory to convert electricity to the required forms of mechanical energy, and photosynthesis in the cells of leaves to convert sunlight into the proper cellular energy). In addition to an energy conversion mechanism, however, we also observe in each system some sort of information guiding the use of that energy. The energy must be properly organized to increase the complexity of the system (e.g. blueprints are needed for the house and the car, and the DNA is needed for the cells of the tree). Based upon our common experience, to increase the complexity of a system it seems that not only energy, but also an energy converter, and a plan or blueprint is required.

The Biblical God, Who is all-powerful and all-wise, is a cause sufficient to explain the complexity of both the universe and biological systems. Alternate theories for the origin of the universe lack energy, energy converter, and plan. Whereas energy for living systems is supplied by the sun, alternate theories for the origin of living things lack both energy converter and plan.