SECOND LAW OF PHYSICS[1]

"To Every Complex System, it requires a

Mandatory (Positive) Negative Feedback Loop for Stability"

Recognized by most scientist

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First, we will discuss the instability hypothesis: instability always happens from small things. What causes instability? You will find it is one thing or a choice of one of many possibilities. In general, it is a small part of the system that causes instability.

For the instability hypothesis, it is seen in all engineering subjects that the cause of instability is a small thing, not something big. For example, in an electric circuit, one burned or reduced value resistor or one burned transistor, causing instability in the output. The column instability happens by a load when exceeded by a small amount; the column is unstable or buckles. Also, the structural one bolt can cause instability, so they require redundancies. It has happened before in collapsed bridges causing the domino effect of one bad weld or a bad bolt. A chair or table becomes unstable if one leg is broken. In geotechnical, the landslide happens when a small added value of weight causes the safety factor to be reduced. Slides also occur from water when pore pressure increases. In computers, it does not take more than one bug in the program to crash the program. One bad chip or voltage spikes or transients, or heat can cause the computer to crash.

Whether or not the atmosphere has stability depends partially on the moisture content. In a car, all it takes for the vehicle to be unstable is one lousy sparkplug. Oxygen (one element) causes corrosion. Instability in investment happens when a stock begins trading widely from highs to lows that are not within the normal range. In politics, extremist revolts start by one person. In political elections, one false propaganda about the candidate can cause a landslide in the election. One person can initiate wars. September 11, 2001, a terrorist attack by a few people in the United States caused worldwide instability. Bin Laden was one person that started a terrorist group. Corruption in India has a terrible impact on the economy and causes enormous social instability

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and riots. Local politics, tribalism, and religious division can cause instability. **It does not take a lot to cause instability**.

In psychology and medicine, one syndrome can cause instability, not many syndromes. What causes emotional instability? One of many things: a) overdependence on someone or something, b) suppression of feelings, c) human tendency to expect rather than accept, d) environment, e) one gene. One injury can cause physical instability. In any religion, all it takes is breaking one commandment to induce guilt and instability. In music, one note off-key or out of tune destroys the whole song or the musical piece. In transportation, all it takes is one accident to cause a traffic jam. In food, one bacterium can cause instability in the stomach. If you eat a meal at a restaurant that serves terrible tasting food or got sick from the food, what are the odds you would go back and even think about it turns your stomach? What breaks a marriage: one affair? What makes a plant or a tree die: not enough water or sun?

Instability happens when someone hacks into your bank account and takes all your money, even when it is a small amount. Instability or panic occurs when the Bubonic Plague appears, 14 people had it in September 2015, so unrealistic fear becomes unstable. However, when someone got sick with the coronavirus in December 2019 in China, a world pandemic happened. It was confirmed on May 16, 2020, CNN news it started likely from animals. On August 4, 2020, the World Health Organization (WHO) said Coronavirus did come from bats, say WHO scientists sent to Wuhan, https://www.yahoo.com/news/coronavirus-bats-wuhan-world-health-organization-112507142.html. On July 5, 2020, some news says is from sewage when finding coronavirus in samples in March 2019, nine months before China, a Spanish virologist announced: https://www.yahoo.com/news/covid-19-may-not-originated-143843488.html. Usually, flees transfer the virus from animals to humans, then how did it happen with the sewage. Also, it was reported on July 10, 2020, coronavirus was found in food. https://www.yahoo.com/finance/news/china-points-shrimp-covid-19-081937694.html This question is always under research. It is most likely that God allowed this virus to develop naturally because of the world's corruption and evil as He did it before with the flood. However,

China[2] failed to tell the world of this severe virus disease in time. But just as past pandemics as the bubonic plague, the blaming game started. But the ultimate responsibility should be God, not China. Additionally, the political gain was delaying containment in the United States, causing the U.S. to have the most death and sickness in the world. It was one person who caused this pandemic. Also, breaking the law causes instability and fear; breaking one law will do it. Water Scarcity May Cause Global Instability, U.S. Intelligence Agencies Say in Report March 2012. The rise of sea level by 10 inches in 2010 (a small amount by comparison) and continue to rise even a slight increase can have devastating effects on coastal habitats and cause instabilities. Trace amounts of CO_2 could cause political instability, severe drought, famine, ecosystem collapse, and other changes that make the Earth a decidedly inhospitable place to live. **So, what cause instabilities: small things, the straw that broke the camel's back.**

One can also realize that stabilizing a system is done through a negative feedback loop from control system engineering. **It is called a negative feedback loop because it reduces the input, but it is positive.** For example, psychotherapy is considered a feedback loop to stabilize a patient. In medicine, medications, surgery, and blood tests are considered a feedback loop for healings. In systems, it takes something from the output and gives it back to the input to stabilize the system. Some simple systems do not require a feedback loop due to the necessary limit being small. So, every complex system must have an input definition and an output definition and a mandatory negative feedback loop to stabilize the system see Figure 1.
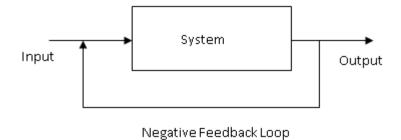

Negative Feedback Loop

FIG. 1 - DEFINITION OF ANY COMPLEX SYSTEM

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[2] Some political leader tries to take advantage of the situation and advertise that China did it to start the virus in the laboratory to convey another world war with China. It is evil and from the devil. We need peace, not war regardless of you believe, haven't enough people died?

In an electric amplifier or the neurons in a human's brain (considered as an amplifier), if there is no feedback, it will lead to distortions, and the amplifier or the brain are not doing their job. Also, note too much feedback in an amplifier it will not do its job to amplify with reasonable efficiency, or it becomes less efficient or worthless. When neurons in the brain get too much feedback or no feedback from too many psychoactive drugs or depressants, narcotics, alcohol, or hallucinogens, instability happens. So, in a system, the feedback must be in balance to give the best results. So, in any system, what is the right feedback or the proper feedback?

The Perceptual Control Theory led to the Method of Levels in which the therapist introduces the negative feedback loop. The therapist works with the patient to resolve conflicts by helping the patient shift their awareness to higher perception levels to allow reorganization to occur. I believe external negative feedback loops are not sufficient, and internal negative feedback loops through meditation will expedite the healing.

Another example: Kohlberg's theory for moral development has been tested for many years, with critic agrees with the theory but complain there is no alternative. I find the theory is sound and makes sense. It is consistent with the laws of physics when we look at a system. The child's mind gets the input for the moral development from external sources, usually the parents and the environment. When the child grows up, they develop their morals from the internal source, as the output, making moral decisions by looking within themselves. The feedback to the system for good morals is peace of mind and having friends makes it a complete system.

Through Christian meditation, the negative feedback loop is Christ himself, a higher power, and that becomes a primary feedback loop to stabilize the human system. Thus, the voice from within that Input System Output Negative Feedback tells us right from wrong is remarkably from God. So, God's voice is our feedback. In my Christian meditation, I get daily feedback from visualizing Jesus and talking to Him, mostly Jesus working with my fears and worries or helping me to solve problems and do His will. However, a vision, an apparition, or a miracle message does not happen very often, only a few ones. This kind of feedback is rare because it will cause a significant change in someone's life, and God knows that, as it did to me. So that means for the

human system, there is a variety of feedbacks, not just one. **There exist in the Universe internal and external negative feedback loop for stability; otherwise, the Universe will become unstable.**