



ATTRACTORS
THE INFO-LETTER OF THE
HUMAN SYSTEMS DYNAMICS INSTITUTE
VOLUME 6.3
MARCH 2009

*Every month **Attractors** shares tips and tools from human systems dynamics. In this month's edition, Glenda Eoyang reflects on*
BALANCE

We all strive for balance: Work/life, expansion/stability, asset/liability, risk/reward, freedom/responsibility. We think of balance as bringing physical health, emotional resilience, organizational sustainability, team productivity, and community stability. In all these contexts we find it much easier to talk about balance than to achieve it. More often than not, potential clients call me because they recognize something in their world is out of balance. They hope that I, as an external observer and experienced consultant, will be able to help get them back into balance again.

Like many things in complex adaptive systems, though, balance is more interesting and challenging than it appears at first glance. Balance is complicated enough in chemical and biological systems, and it can be completely confounding in human systems. Human systems dynamics has several tools to help assess and influence balance for individuals, teams, organizations, and communities, but the most important thing is to understand what "balance" means in the context of a complex human system.

The technical definition of balance is equilibrium.

The traditional understanding of equilibrium assumed that it was the endpoint of most spontaneous motion. If a closed system was left alone, it would tend toward equilibrium. Differences across the system would balance out, and the system as a whole would come to rest when energy was equalized from one part to another. Hot and cold blend, and the whole becomes luke warm. High energy dissipates across the system, until the whole ends up with a homogenous distribution of energy. Resources flow from high concentrations to low, until all parts of the system are the same, then change ceases.

This process makes sense in physical systems, but it doesn't always work in human systems. Because human systems are open and their causal relationships are nonlinear, we seldom see situations where excitement, information, money, or other critical differences distribute themselves easily across a whole community. Instead, we see human patterns where differences increase over time. The rich get richer; the smart get smarter, and excitement (or fear) builds over time, rather than dissipating. These non-equilibrium seeking patterns match our experience and common sense, but they require a nontraditional understanding of how the desire for balance shapes change in human interaction.

Nonlinear dynamics deals with two critical distinctions in equilibrium, both of which are critical to understanding balance in our personal, professional, and organizational lives.

Static or dynamic. Static equilibrium describes an object at rest, where all the forces are equal, balanced, and unchanging. We see this sometimes in human systems when people are deadlocked in conflict or when confusion brings about inaction. We often talk about systems being "stuck" when they've fallen into a static equilibrium situation.

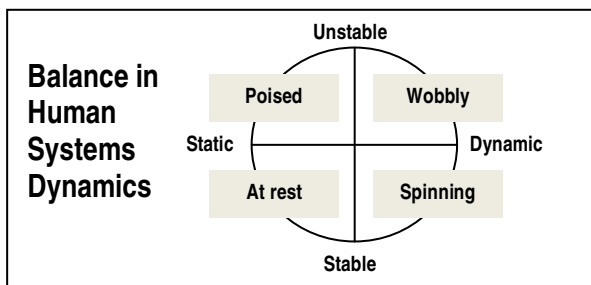
To get the system moving again, something (like power, information, innovation) must be introduced to disrupt the current balance and get the system moving again.

Dynamic equilibrium describes an object that is moving, but moving in a perfectly predictable way. Think of a rock at the end of a string that swings around and around, an efficient assembly line, or a high performing team. This kind of equilibrium also holds until it gets an external shock, but the change it experiences is going from ordered to disorderly motion. Shifting into dynamic equilibrium is the sometimes subtle change of going from bumpy and surprising to smooth and predictable motion.

Stable or unstable. In addition to static or dynamic, equilibrium can be either stable or unstable. A system that is in a stable equilibrium will return to its initial position after it is disturbed. Think of holding the eraser end of a pencil and letting the pointed end dangle. Push the point to one side, it will swing a bit and eventually return to where it started. In human systems, this is called “resilience.” A child is resilient (stable equilibrium) when he or she can absorb shocks and return to stability quickly and completely. The same is true for an employee, a team or a whole workforce. Today, our hope is that the world economy was in a stable equilibrium before the shocks of late 2008.

Unstable equilibrium, on the other hand, is where the system is disturbed from either rest (static) or predictable motion (dynamic) and does NOT return to its original state. Balance the pencil on its point, and you’ll have a perfect unstable equilibrium—if you move it even slightly, it will fall over completely rather than bouncing back to where it was before. Process and system breakdowns, violent conflicts, and competition in an immature market all show signs of unstable equilibrium.

The diagram below summarizes how these two distinctions play out in multiple forms of balance in human systems dynamics.



So, when you are searching for balance in your life and work, consider which of these you may already have, which one you might want, and the many options for action that could help you shift from one to another. We will be glad to help you keep or shift the balance of your own far-from-equilibrium system!

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