

# THE 8 BIGGEST MISCONCEPTIONS ABOUT SYSTEMS THINKING

...their replacements and why they persist as "sacred cows."

Misconception	Scientifically-valid Replacement	Brief Explanation
1 The whole is more than its parts ( $W > P$ ).	The whole is always precisely equal to its parts ( $W = P$ ).	$W < P$ is a trick that works because you artificially decide not to define relationships as parts; a misconception of emergence.
2 All systems have a purpose.	The purpose of a system is what it does (POSIWID).	We often impose our aspirational or biased purposes on systems. What the system actually does is its purpose because its structure determines its behavior.
3 Systems thinking is the systems dynamics framework [or insert any other tribal framework here].	Systems Thinking is an emergent property (an outcome) of four simple rules (DSRP).	Systems thinking isn't something you do, it's something you get (an emergent property) by following simple rules. DSRP rules have been empirically validated.
4 Systems thinking is holistic (variant: systems thinking is anti-reductionist).	Systems thinking is balanced thinking (both/and holistic and reductionistic, not either/or).	Systems Thinking is "middle way" thinking. It is incoherent to think about the whole (holism) without thinking also about the parts (reductionism), and vice versa.
5 Everything is connected.	Everything is connected, or it isn't, thankfully.	How things are connected and not connected, is critically important to system behavior. In nature, networks where everything is connected to everything else are rare.
6 Systems Thinking is all about Relationships (variant: relationships is all you need).	It's not all about Relationships (R), it's also about Distinctions (D), Systems (S) and Perspectives (P).	DSRP is present in all systems. Relationships are important, but they are not enough.
7 Systems are not real, they are only mental models.	Systems are real; they may be different from your mental models of them.	Systems exist in the real world, it's our job to try to get our mental models in alignment with them (a.k.a., "science").
8 It's all about the context.	The context of stuff is other stuff.	Context is a lazy/vague term. It is the enemy of systems thinking because it causes us not to see all the other stuff (complexity).