

# GETTING TO ENOUGH

## HOW WE'LL SOLVE THE DILEMMA THAT'S DESTROYING OUR WORLD

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## The problem:

“Anyone who grasps the severity of humanity’s predicament and tries to figure out how we might respond with something like a new organization, technology, or social movement to make things better—not just for ourselves narrowly, but for all of humanity—confronts an unforgiving conundrum, which I’ve come to call the ***enough vs. feasible dilemma.***”

Thomas Homer-Dixon, *Commanding Hope: The Power We Have to Renew a World in Peril* (Toronto: Knopf Canada, 2020), p. 35.

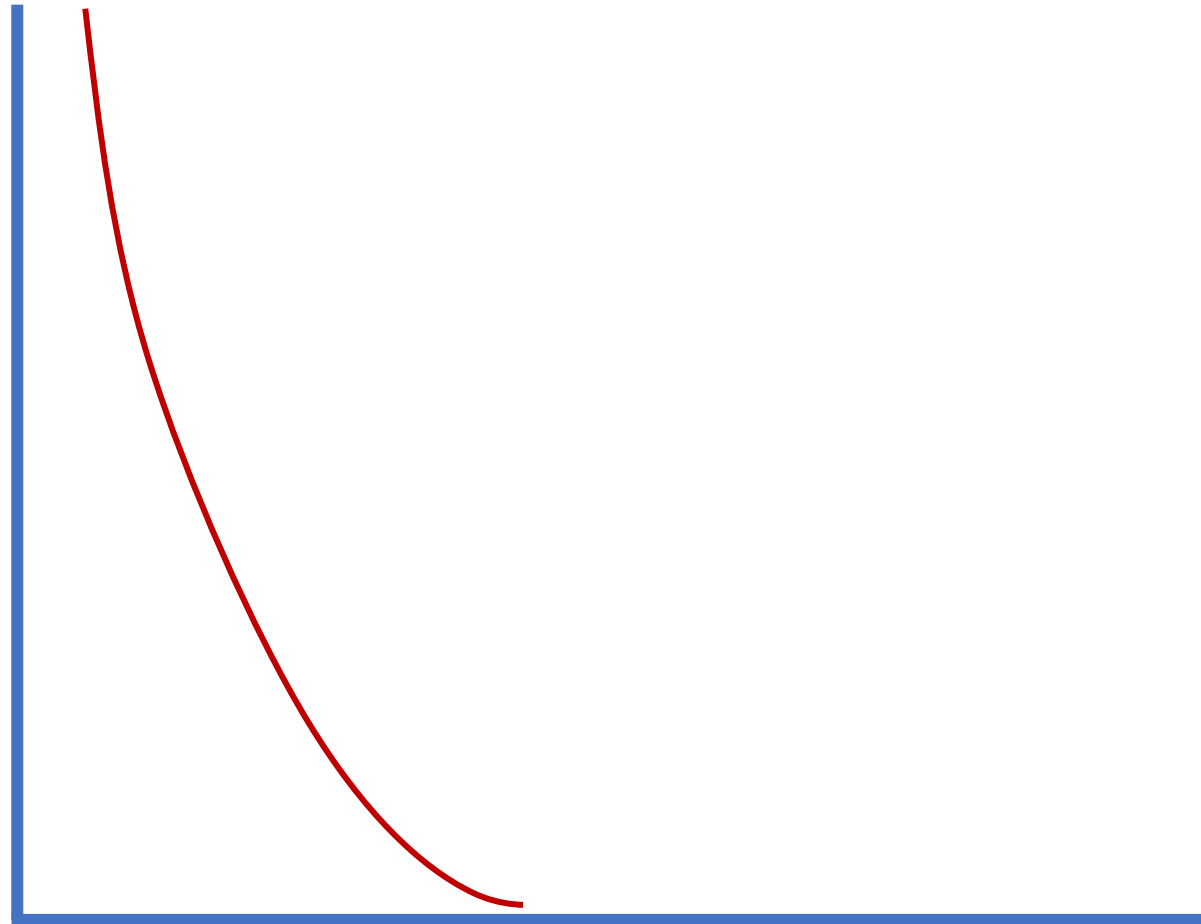
## The problem (continued):

“On one hand, changes that would be *enough* to make a real difference—that would genuinely reduce the danger humanity faces if they were implemented—don’t appear to be *feasible*, in the sense that our societies aren’t likely to implement them, because of existing political, economic, social, or technological roadblocks.

On the other hand, **changes that do currently appear feasible won’t be enough by themselves.”**

Thomas Homer-Dixon, *Commanding Hope: The Power We Have to Renew a World in Peril* (Toronto: Knopf Canada, 2020), p. 35.

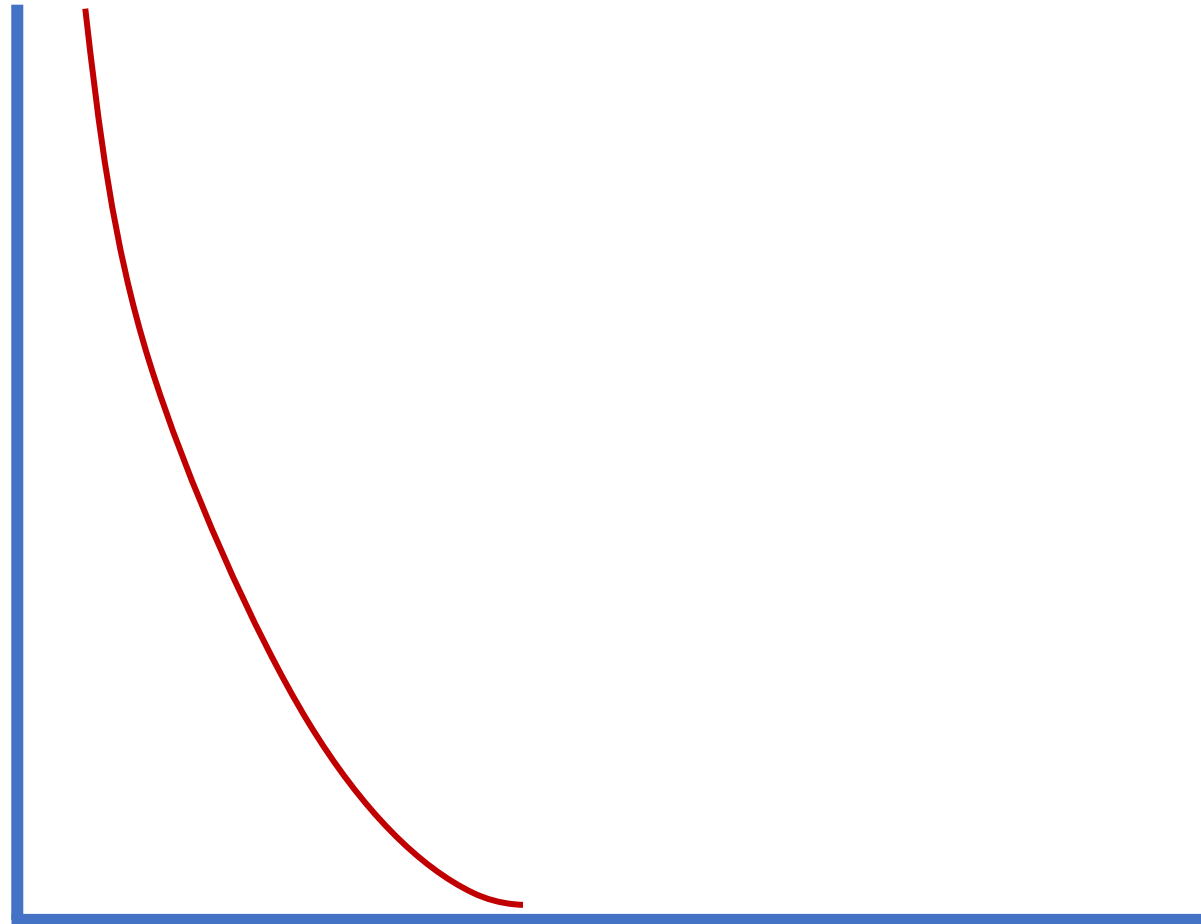
**Feasibility**  
(and number)  
of interventions



**Effectiveness**  
(and systemic disruptiveness)  
of interventions

*We can graph the enough vs. feasible dilemma, by plotting an intervention's effectiveness (say, in keeping warming to 2°) against its feasibility. We **appear** to live in a world where the relationship looks like this.*

**Feasibility**  
(and number)  
of interventions

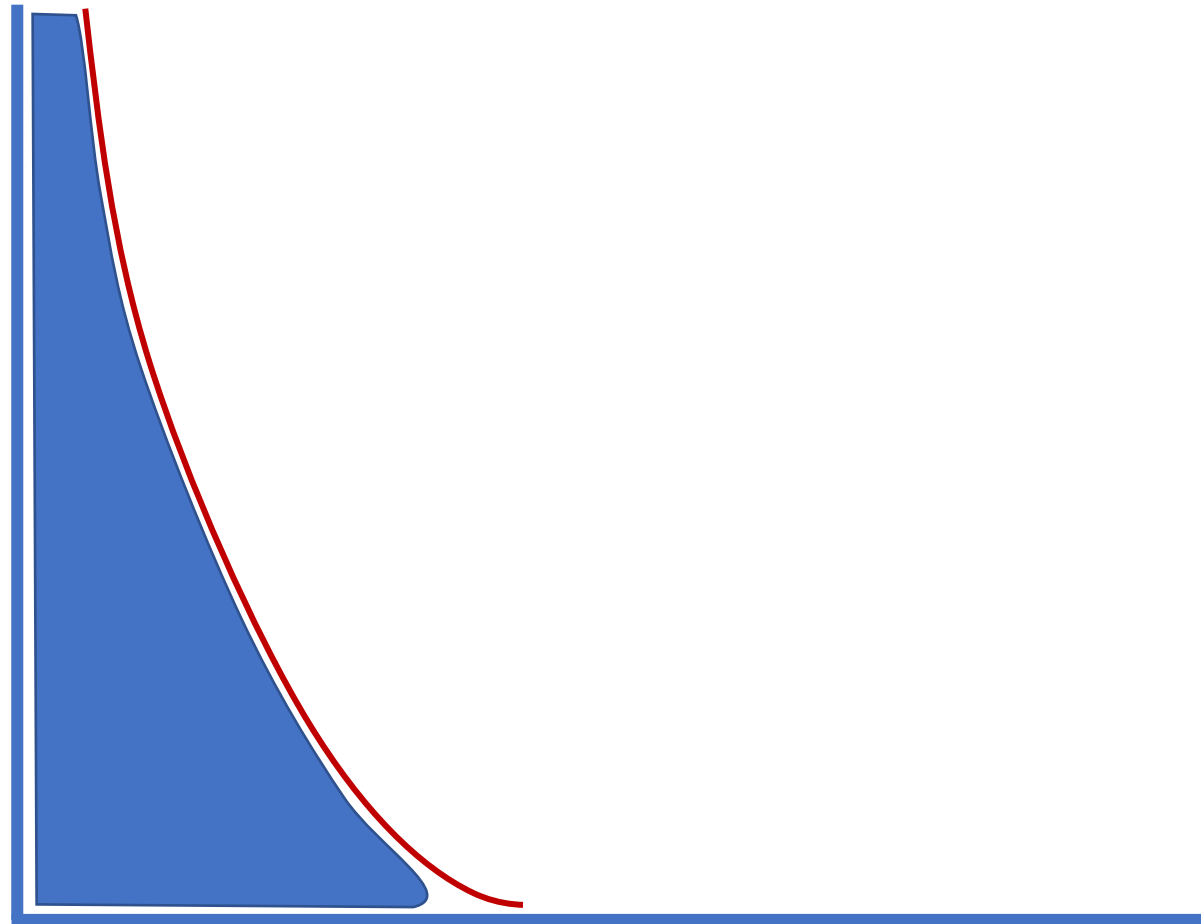


**Effectiveness**  
(and systemic disruptiveness)  
of interventions

*More **feasible** interventions are easier to implement, so we implement more of them.*

*More **effective** interventions generally involve more disruption to our societies' worldviews, institutions, and technologies. People and organizations resist this disruption, so these interventions are less feasible, and we implement fewer of them.*

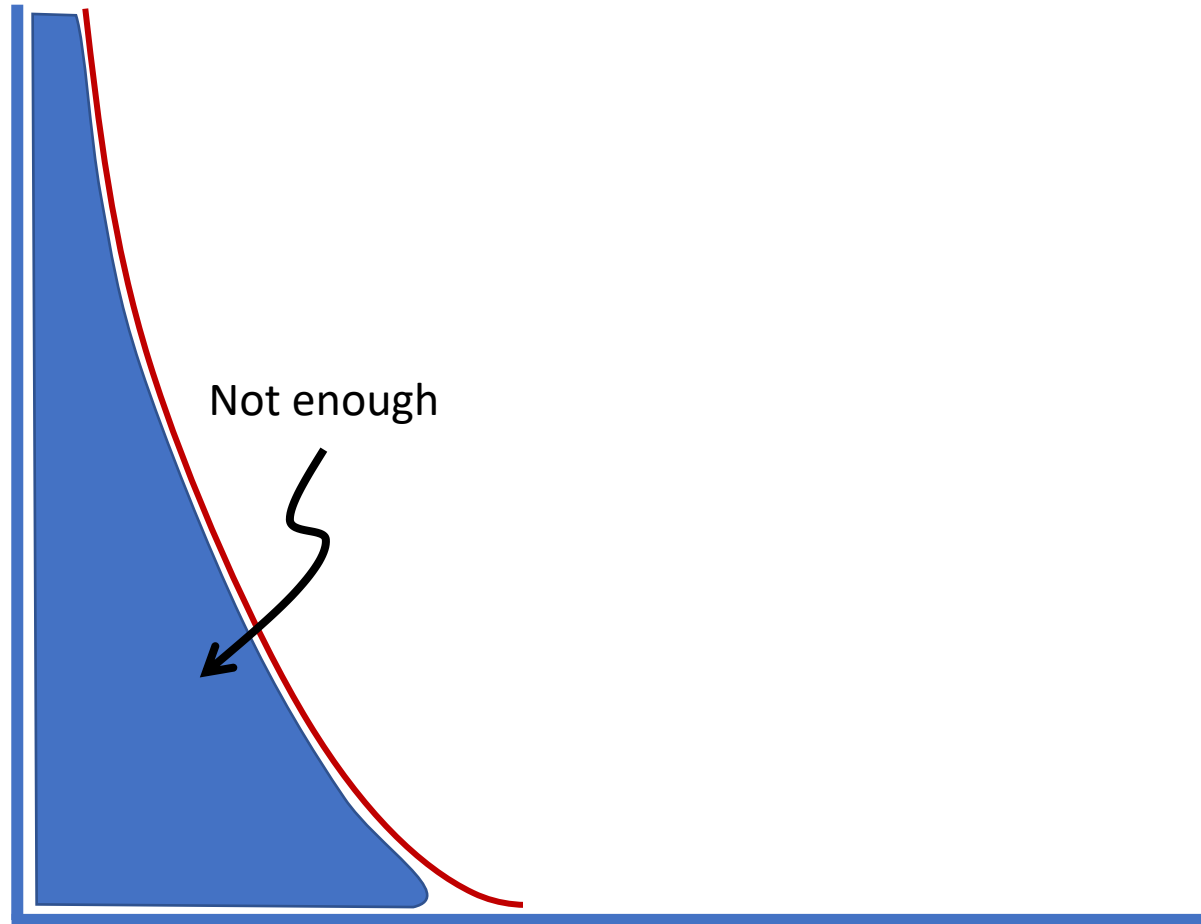
**Feasibility**  
(and number)  
of interventions



**Effectiveness**  
(and systemic disruptiveness)  
of interventions

*The area under the curve  
corresponds to the **total  
potential effectiveness** of  
all feasible interventions  
in our current world.*

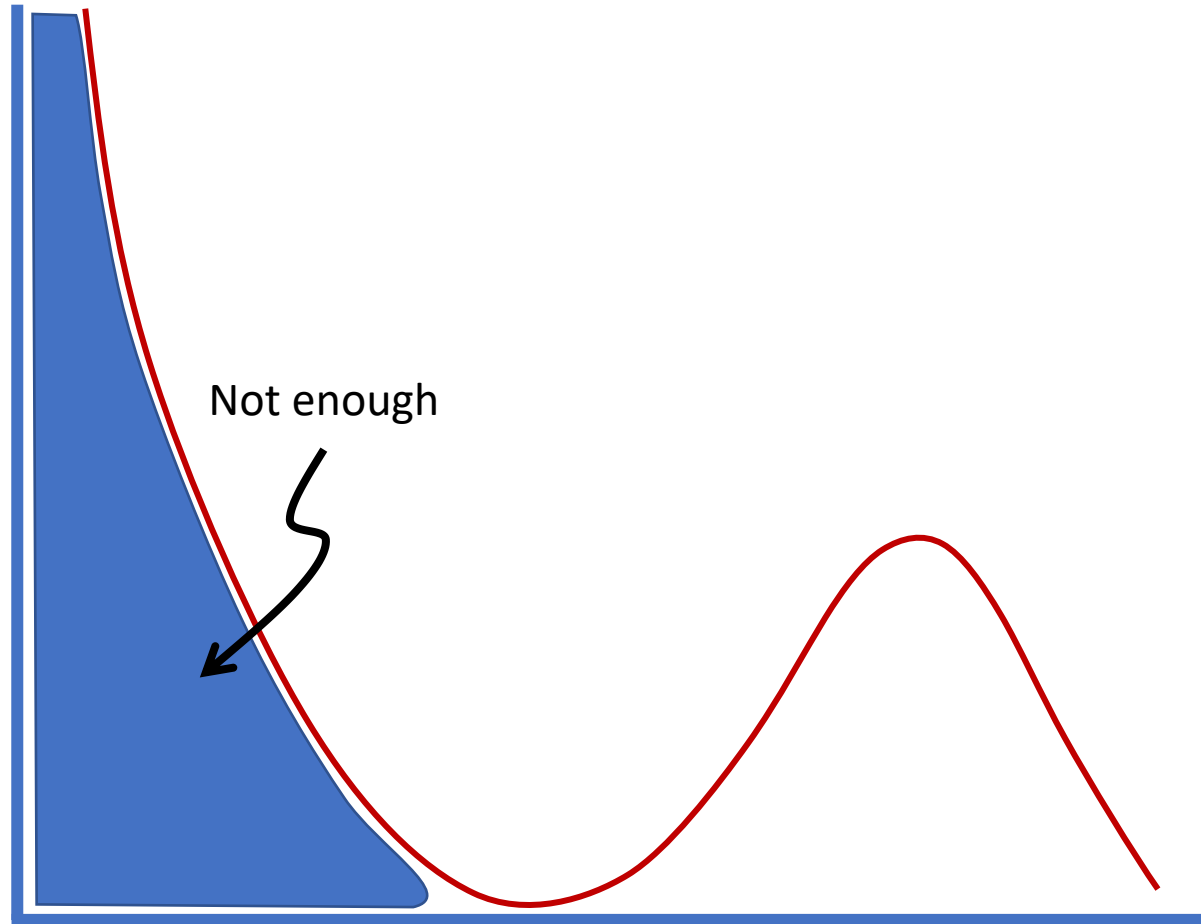
**Feasibility**  
(and number)  
of interventions



**Effectiveness**  
(and systemic disruptiveness)  
of interventions

*It's not enough.*

**Feasibility**  
(and number)  
of interventions

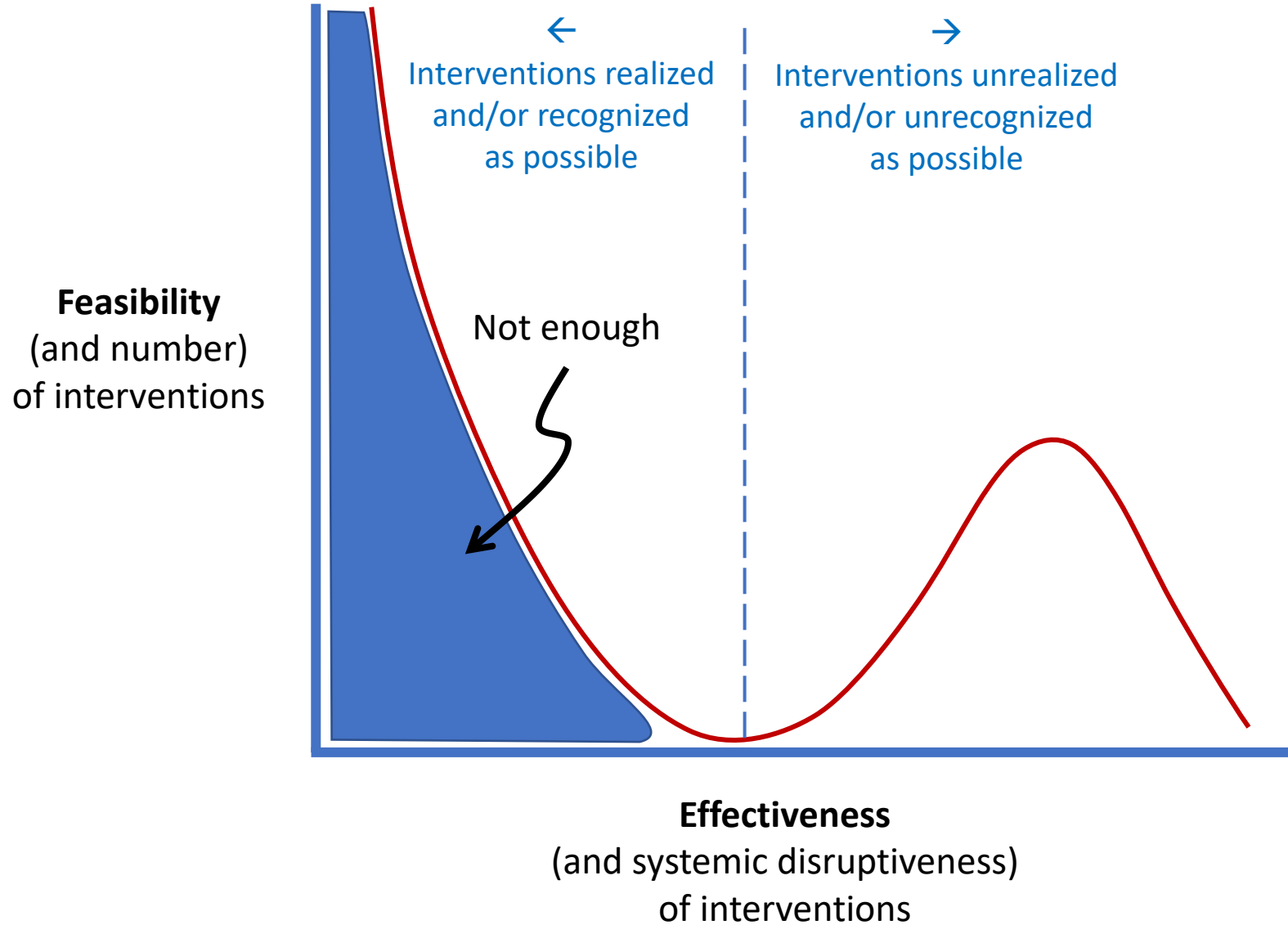


Not enough

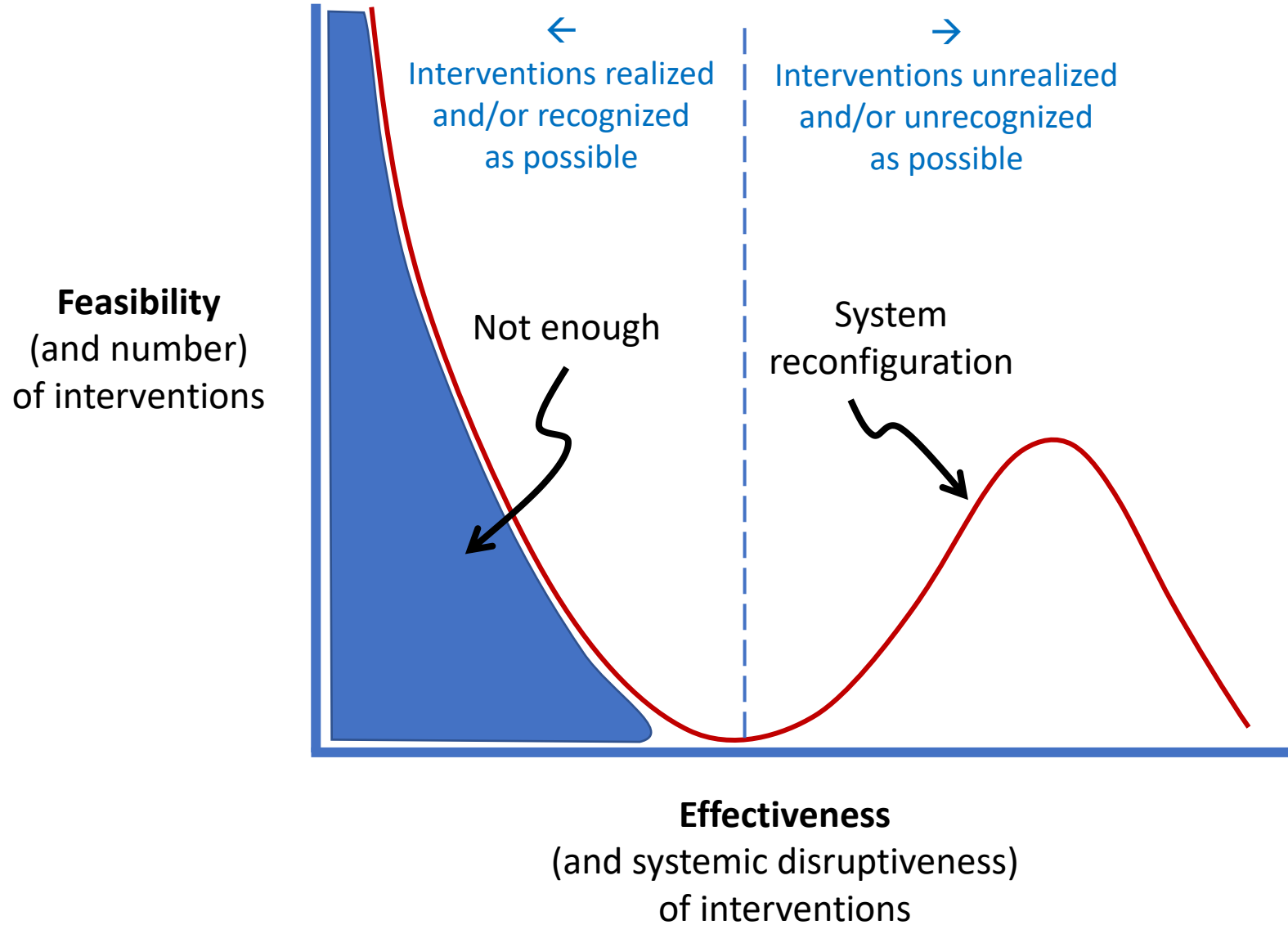
**Effectiveness**  
(and systemic disruptiveness)  
of interventions

*But perhaps we're  
missing something.*

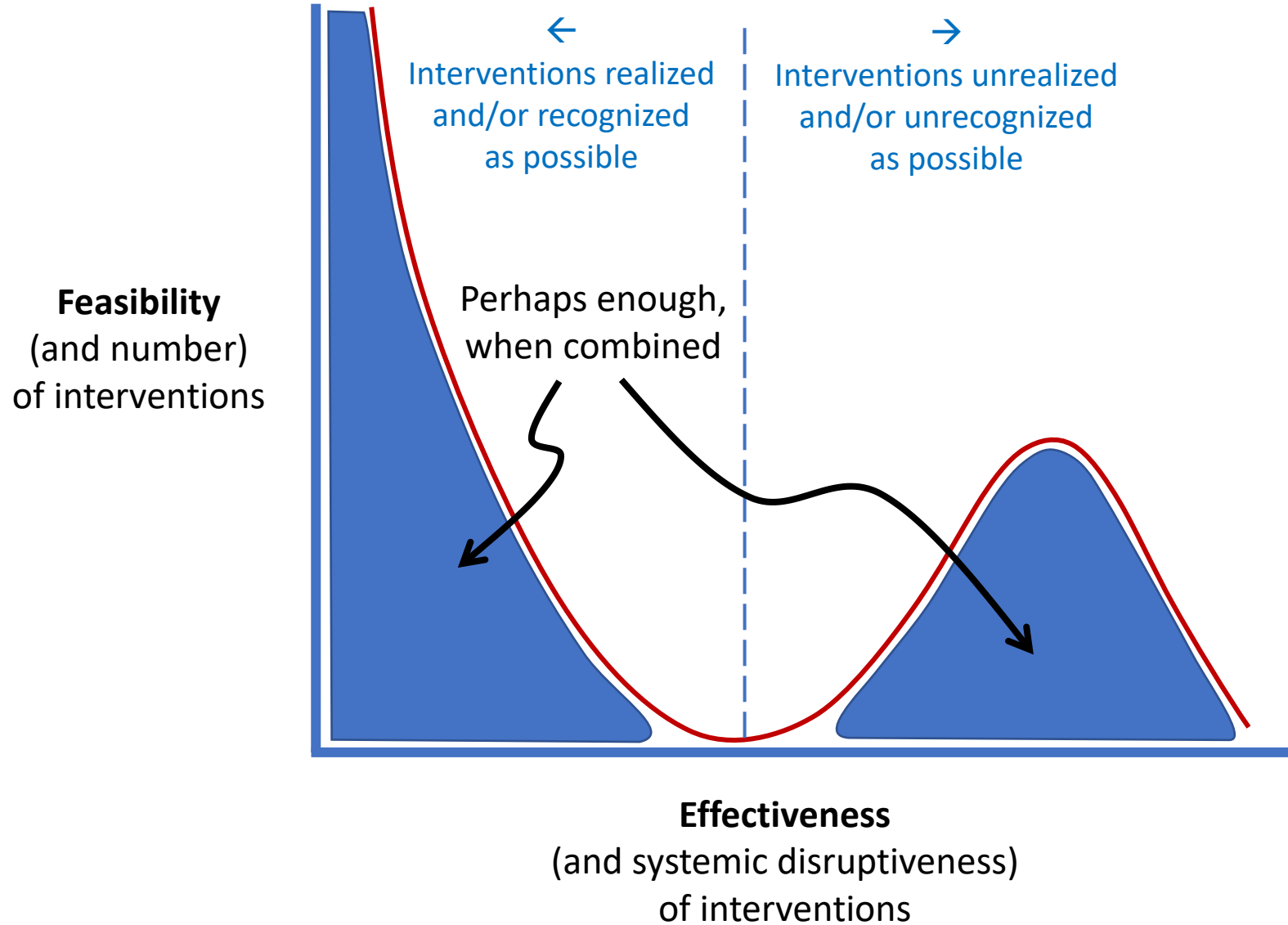




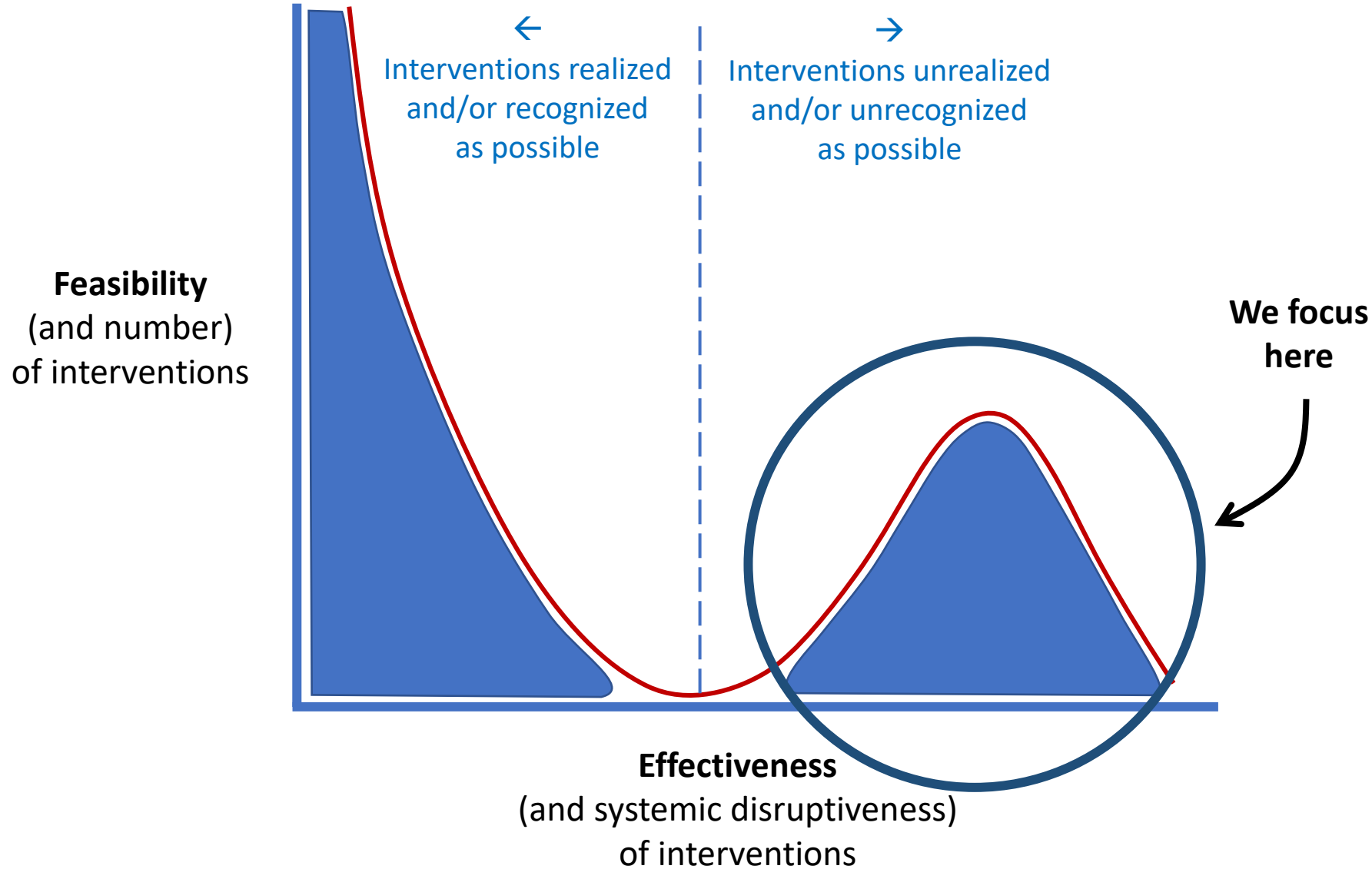
*Perhaps there are additional effective interventions beyond the boundary of what we currently recognize as possible—in a zone called the “**adjacent possible.**”*



*These currently unrecognized interventions will become possible as societies—their worldviews, institutions, and technologies—reconfigure themselves in response to today's converging environmental, economic, social, and technological stresses.*

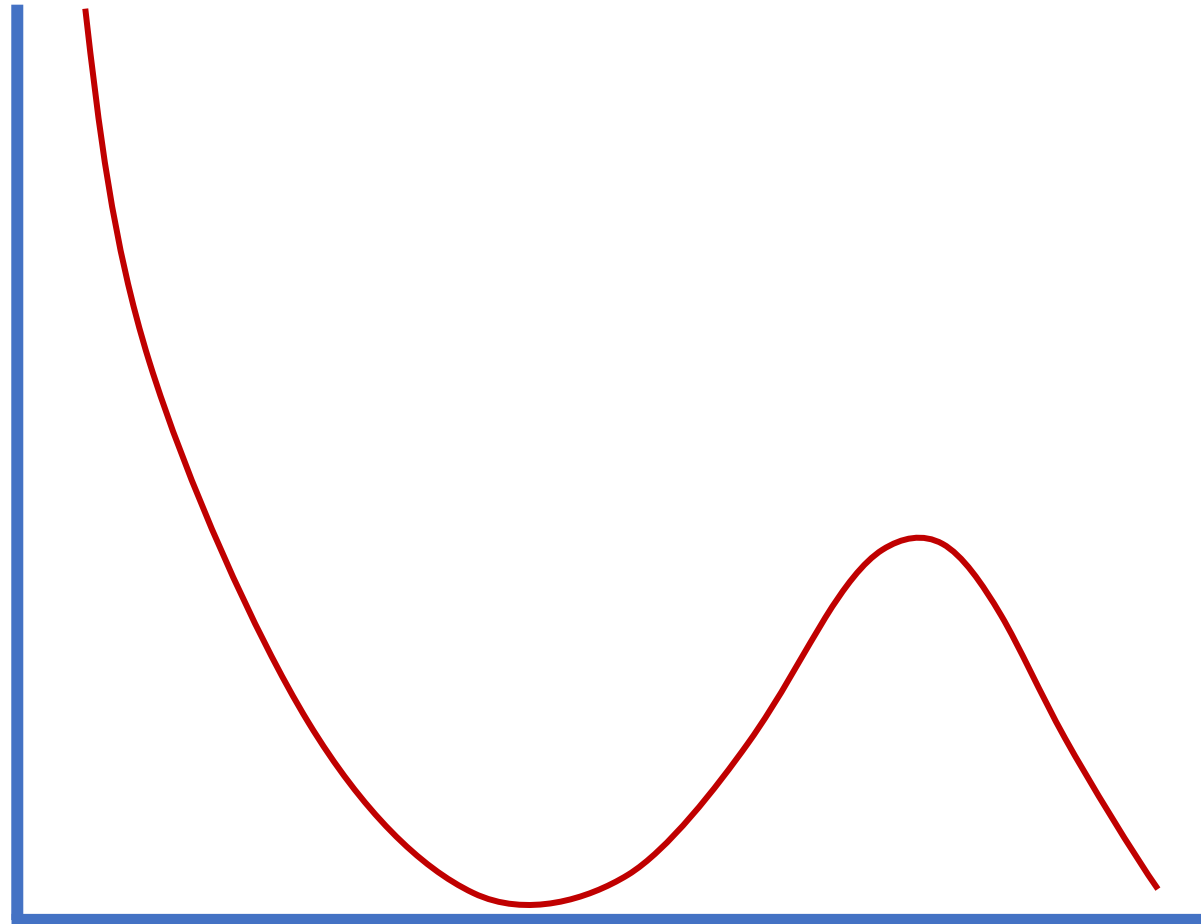


*And together, those newly feasible interventions, along with the ones we're implementing today, may be enough.*



*The Cascade Institute's  
mandate is to identify  
these interventions in the  
adjacent possible and  
make them real.*

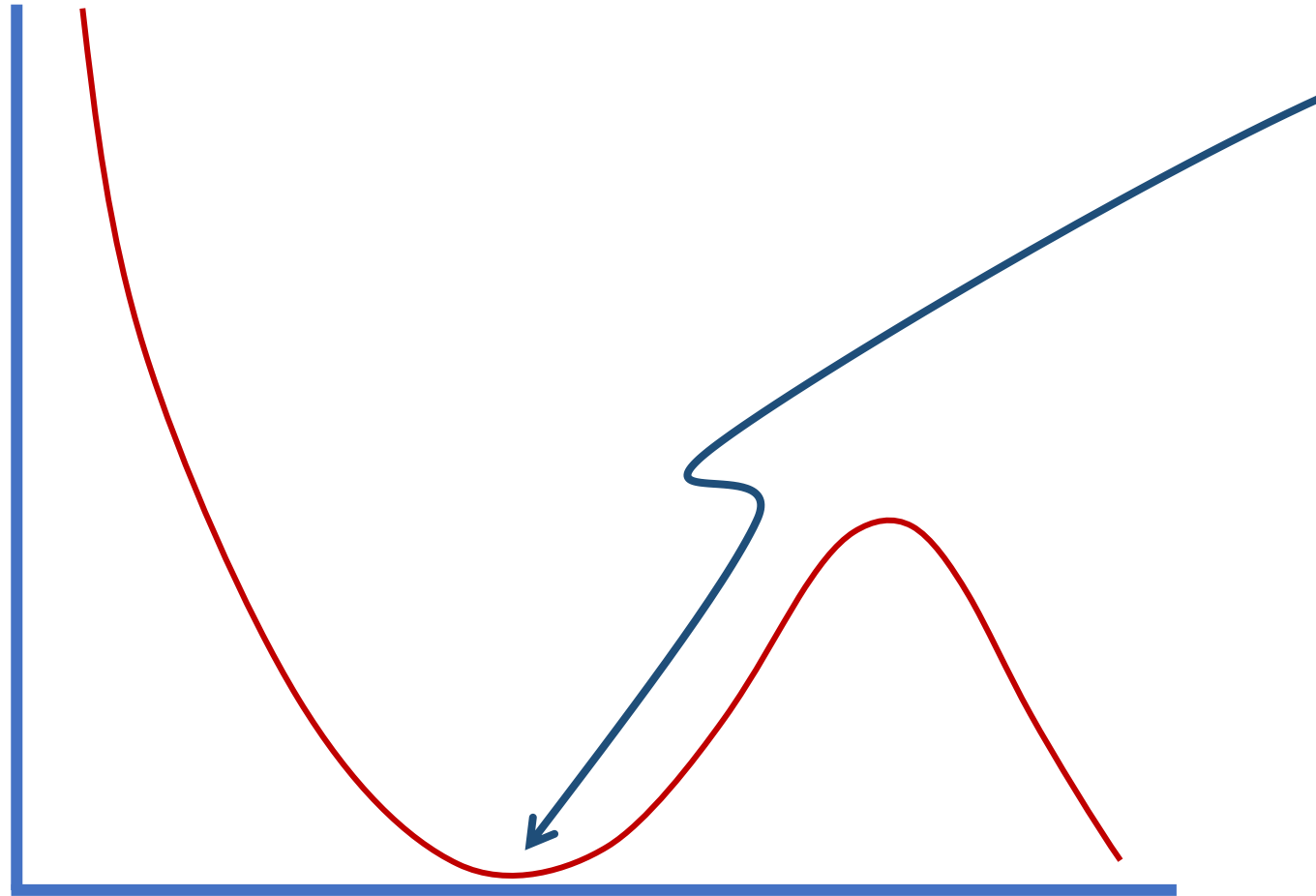
**Feasibility**  
(and number)  
of interventions



**Effectiveness**  
(and systemic disruptiveness)  
of interventions

*Because of its shape, we  
call this representation of  
the relationship between  
effectiveness and  
feasibility the  
“Le Corbusier Chair curve.”*

**Feasibility**  
(and number)  
of interventions

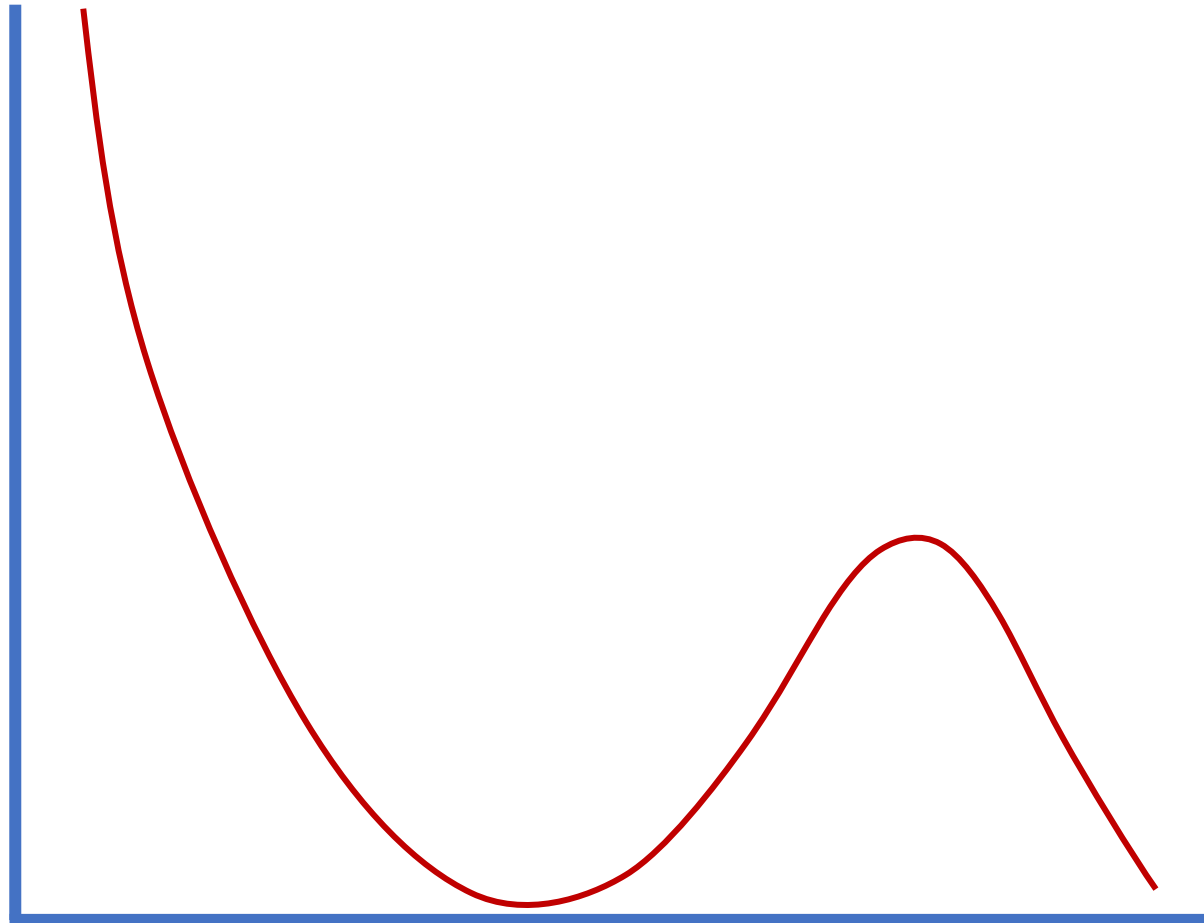


**Effectiveness**  
(and systemic disruptiveness)  
of interventions

*But why does feasibility  
fall to zero at the mid-  
range of effectiveness?*

*Let's turn the chair upside  
down to see.*

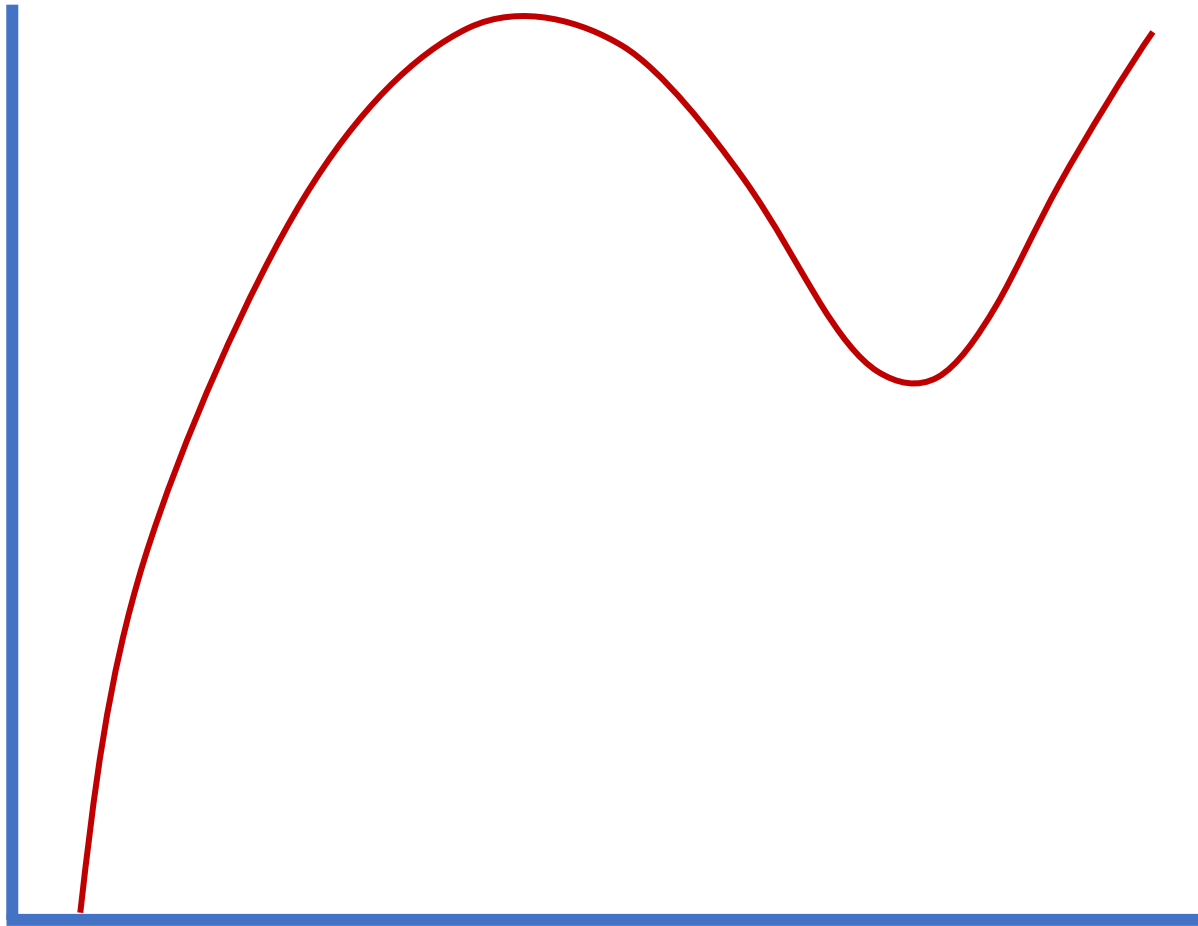
**Feasibility**  
(and number)  
of interventions



**Effectiveness**  
(and systemic disruptiveness)  
of interventions

Rotate curve  
vertically

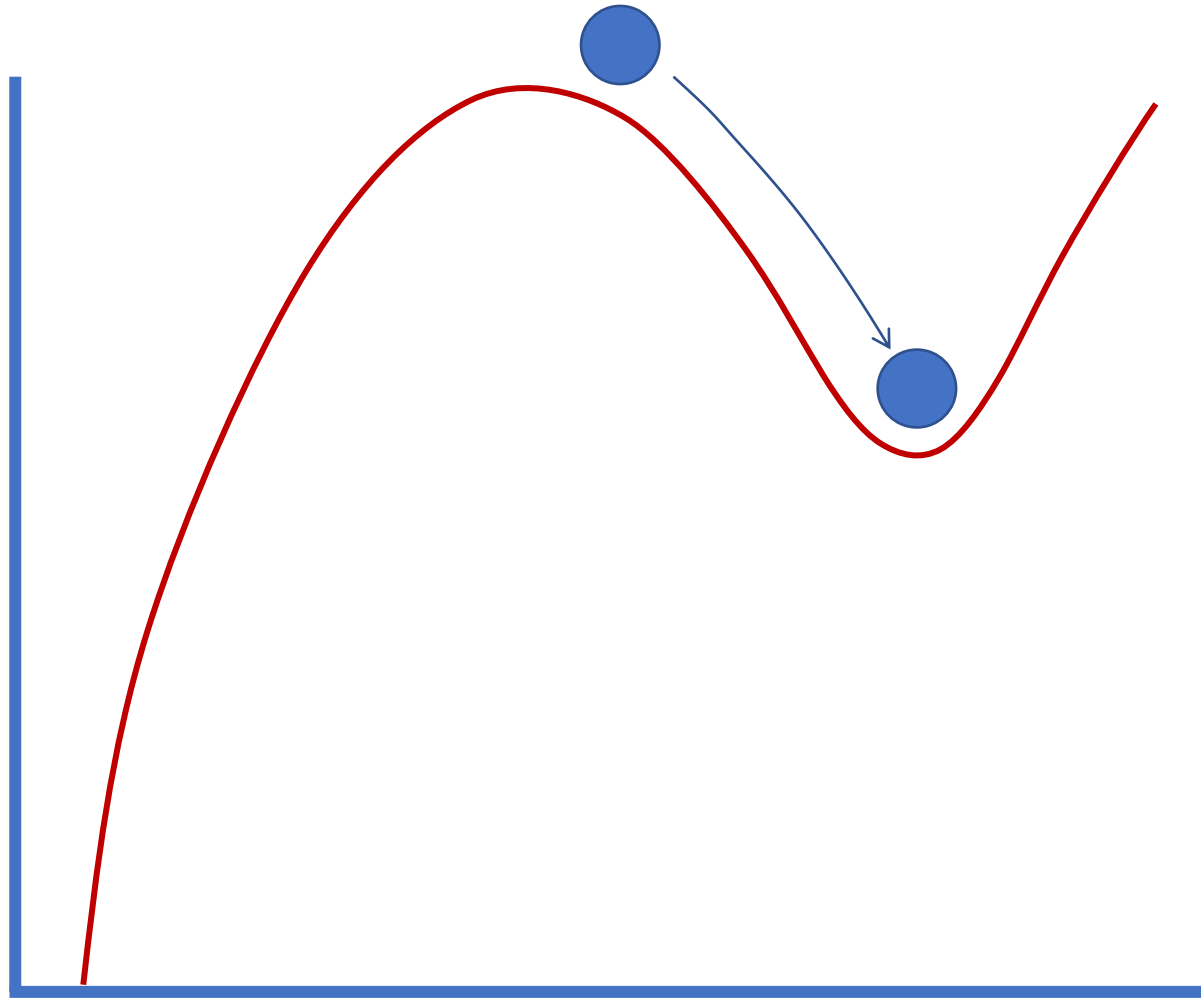




*Now the curve represents what complexity scientists call an “energy landscape.”*

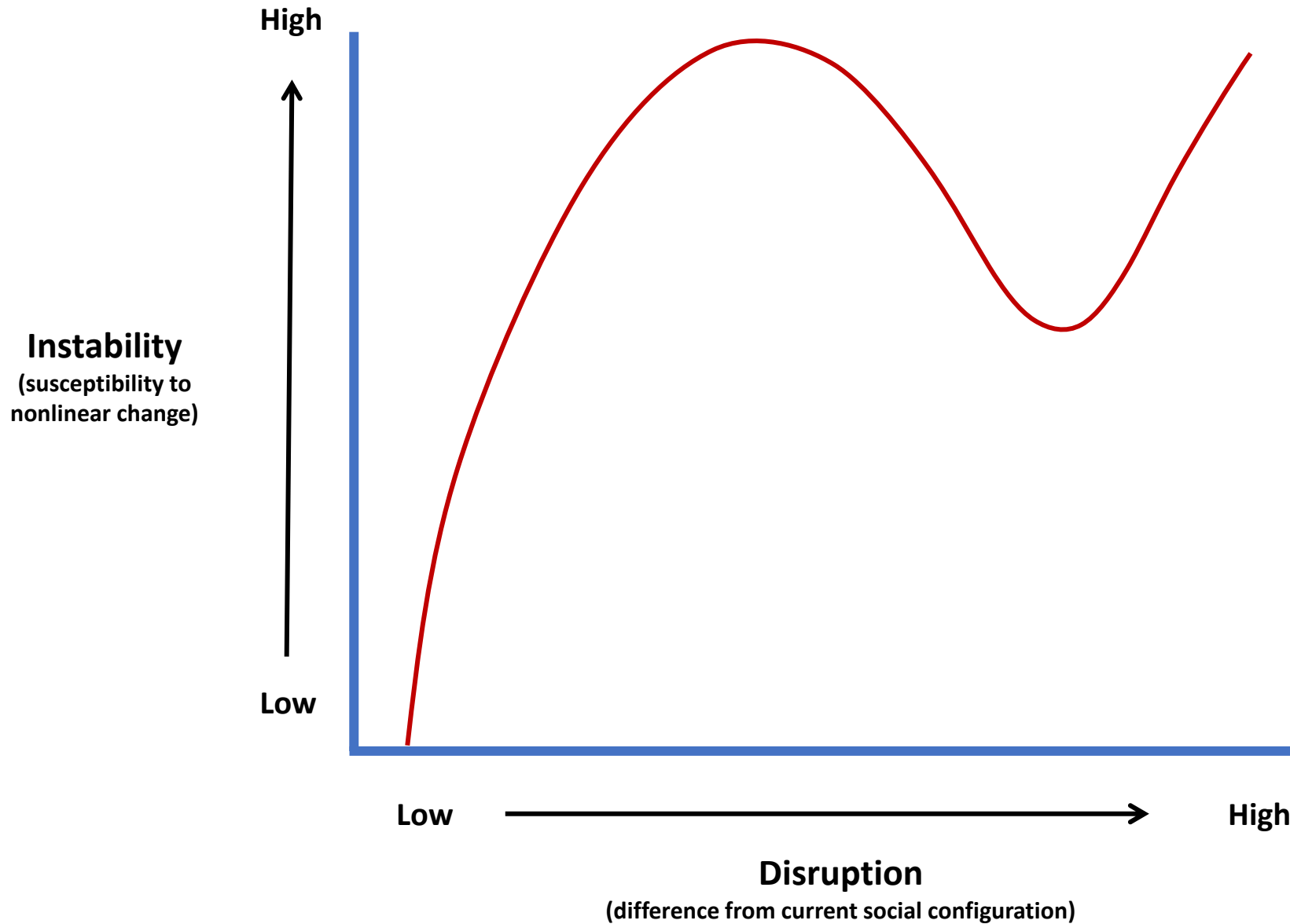
*This metaphor shifts our focus from individual interventions inside our societies to large-scale changes in the societies themselves and the stability of those changes.*





*Complexity scientists use energy landscapes to understand how complex systems like an economy or Earth's climate move between stable states, or "equilibria."*

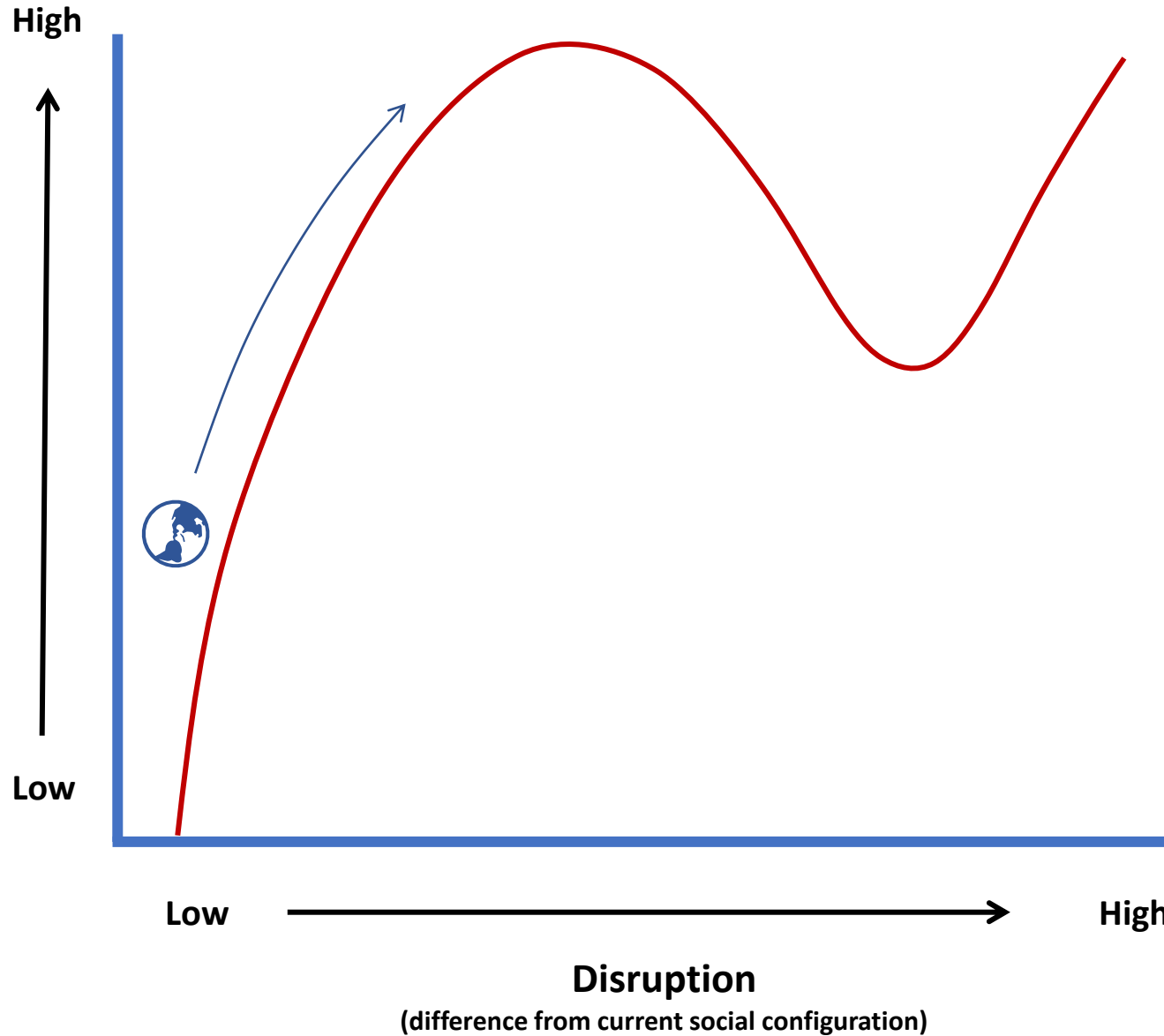
*The system in question is represented by a ball. The ball rolls towards a low point on the landscape, called a "basin of attraction," which represents a point where less work (or energy input) is needed to keep the system functioning. So the system is more stable at that point.*



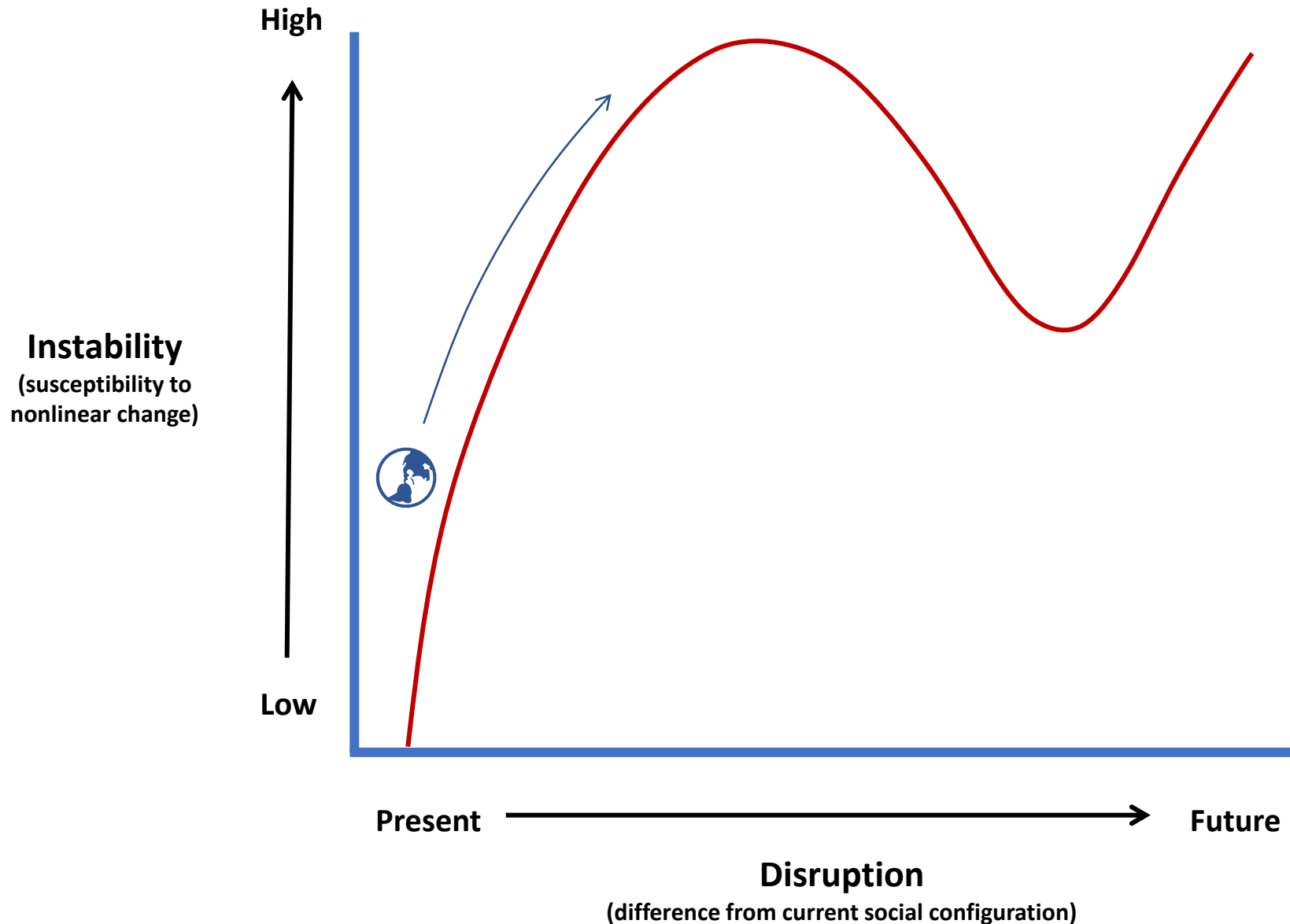
*On this landscape, “Disruption” rises from left to right. The further right, the more our societies’ social configurations—their worldviews, institutions, and technologies—differ from their configurations today.*

*“Instability” rises from bottom to top. The closer to the top, the more unstable are those configurations. (Technically, this means they’re more susceptible to nonlinear change, so a small push can cause an enormous response).*

**Instability**  
(susceptibility to nonlinear change)



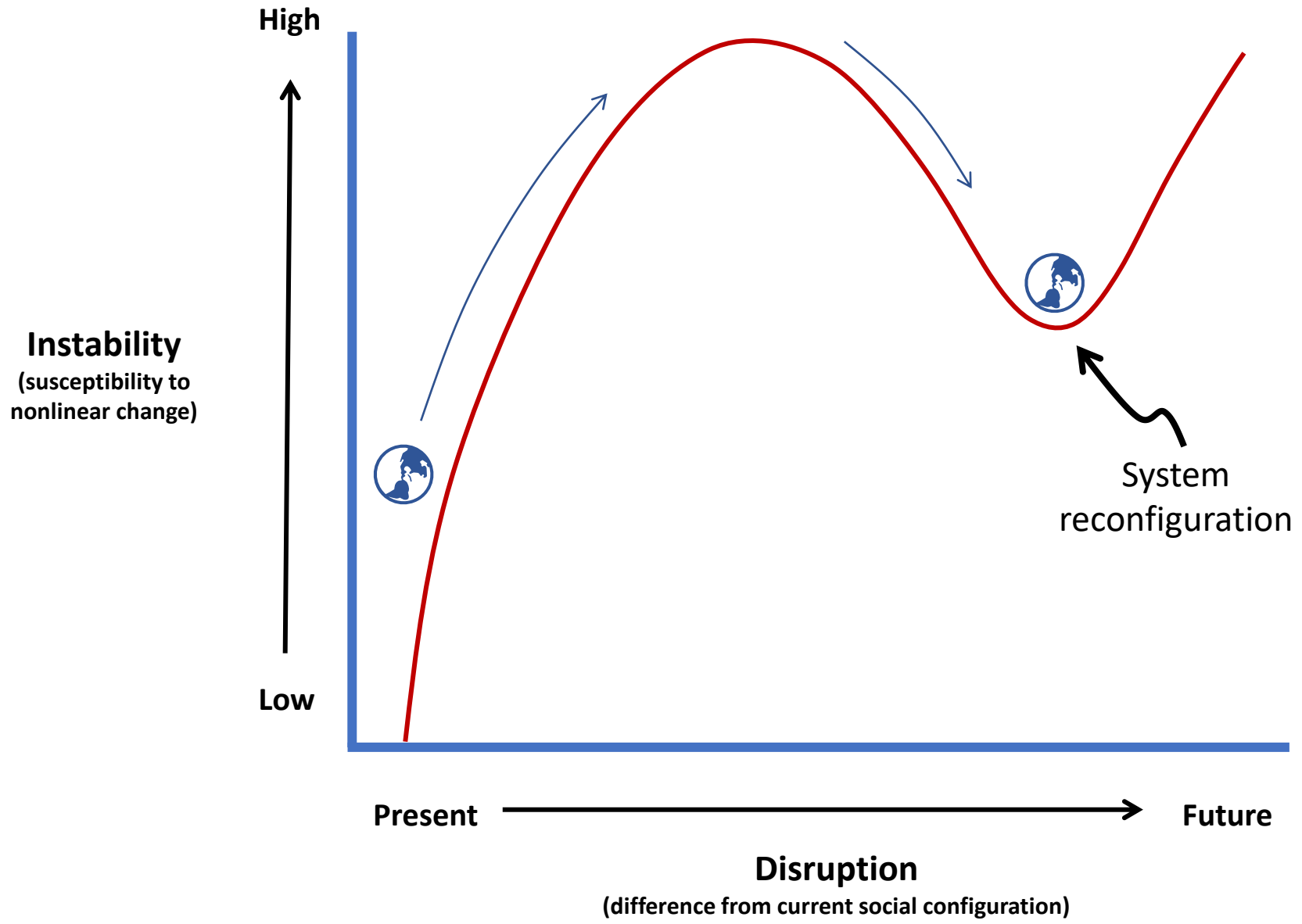
*Our societies are currently in a basin on the left side. But multiple stresses and shocks, like pandemics and extreme climate events, are disrupting them and propelling them up the basin's side.*



*And because we aren't effectively intervening to reduce these stresses and shocks—that is, because we aren't “getting to enough”—problems like climate change are becoming steadily more severe.*

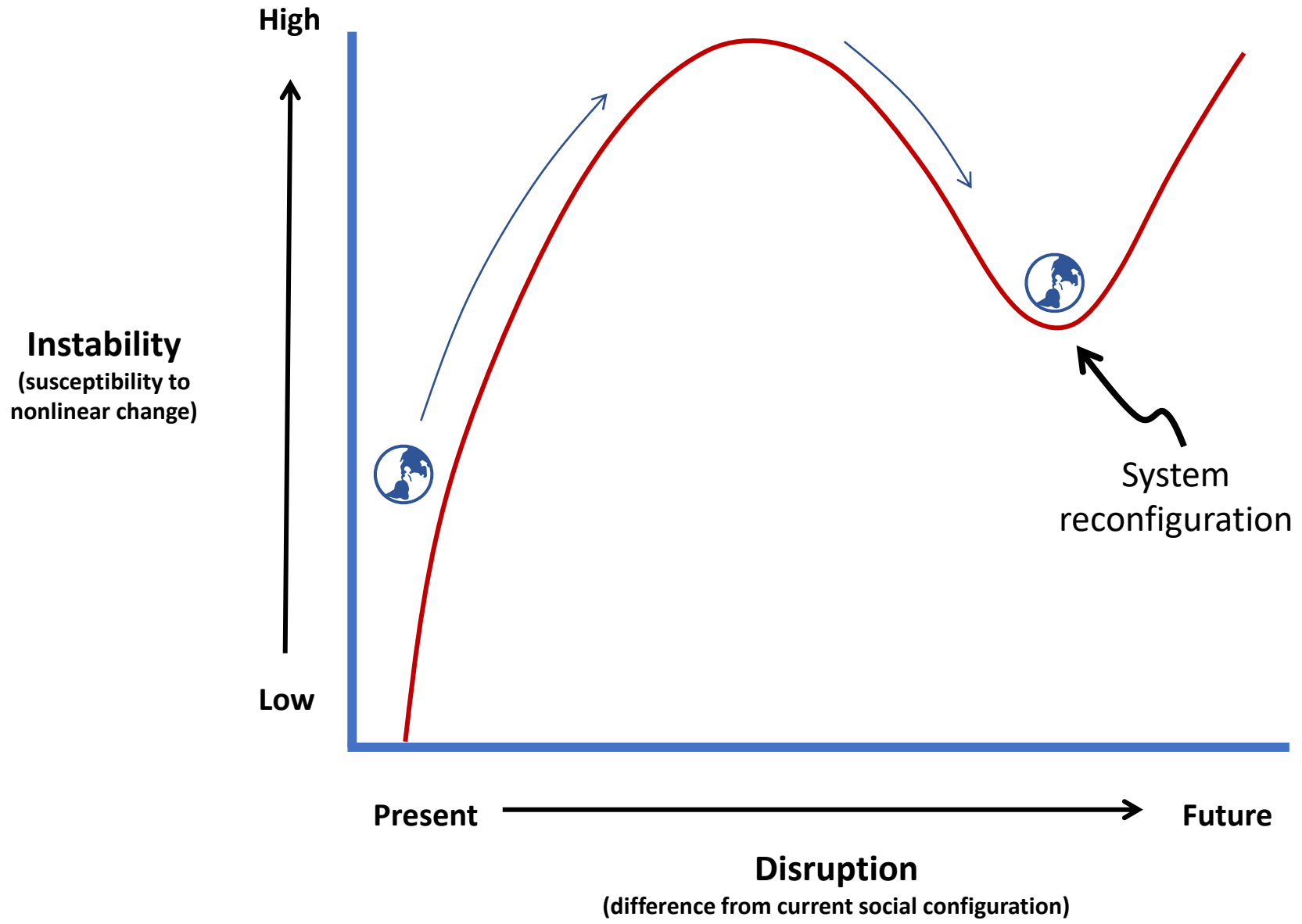
*So the degree of “Disruption” our societies are experiencing also represents the passage of time from the present into the future.*



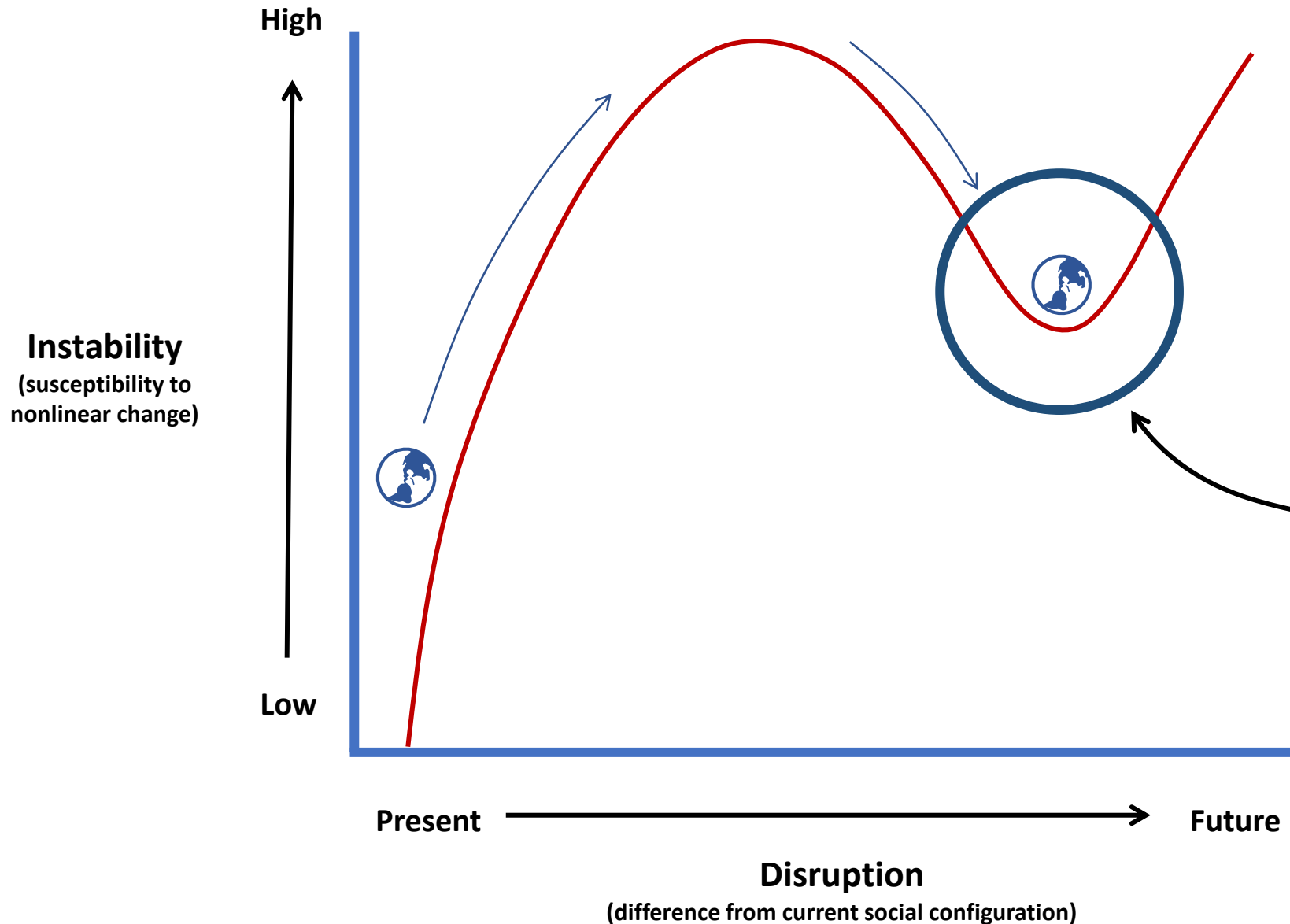


*Beyond a certain level of disruption, our societies' worldviews, institutions, and technologies will "flip" to a new stable state, a new basin of attraction. (The zone at the top of the hump represents a period of extreme instability between the two states.)*

*This reconfiguration could allow for much more effective interventions, as shown in the earlier slides.*

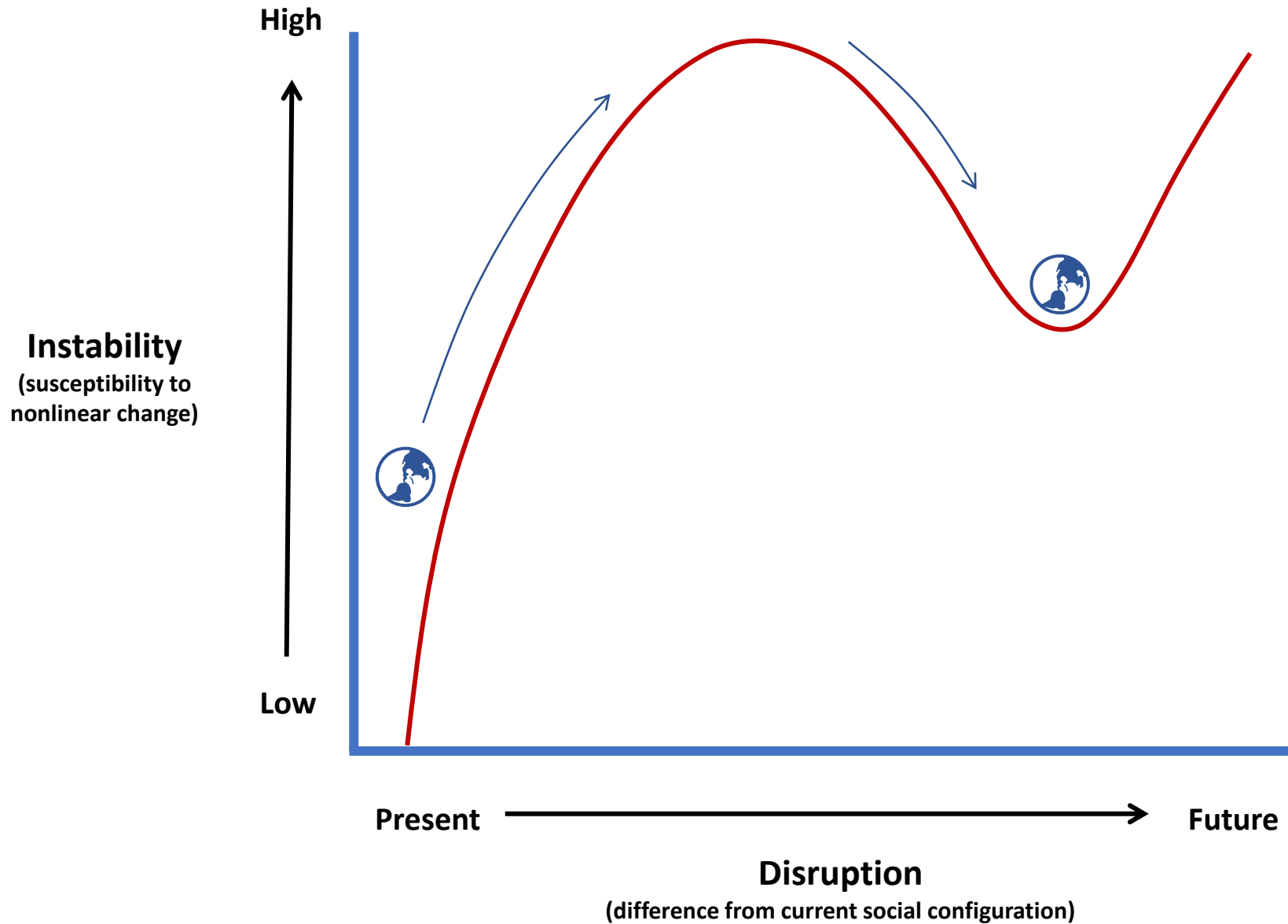


*But we'll achieve this positive outcome only if we don't end up at each others' throats. As our societies face converging stresses and multiple shocks, the degree to which human beings recognize their shared fate on Earth will largely determine whether we fight each other or collaborate to solve our common problems.*



*The Institute's "Norm Cascades" project focuses on making such a belief and value shift more likely.*

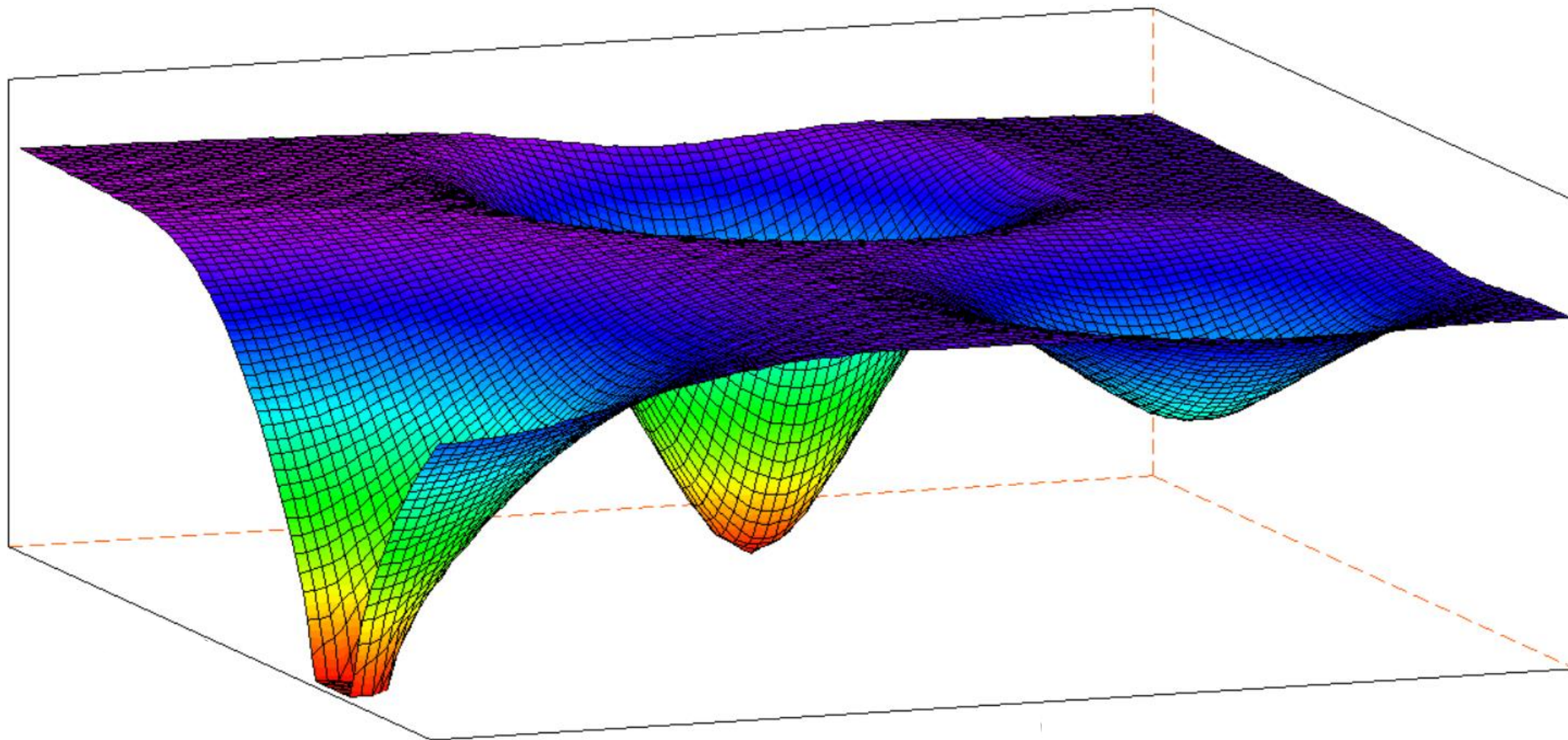
**Positive interventions here will only be feasible if a larger fraction of human beings recognize their shared fate with one another and Earth.**



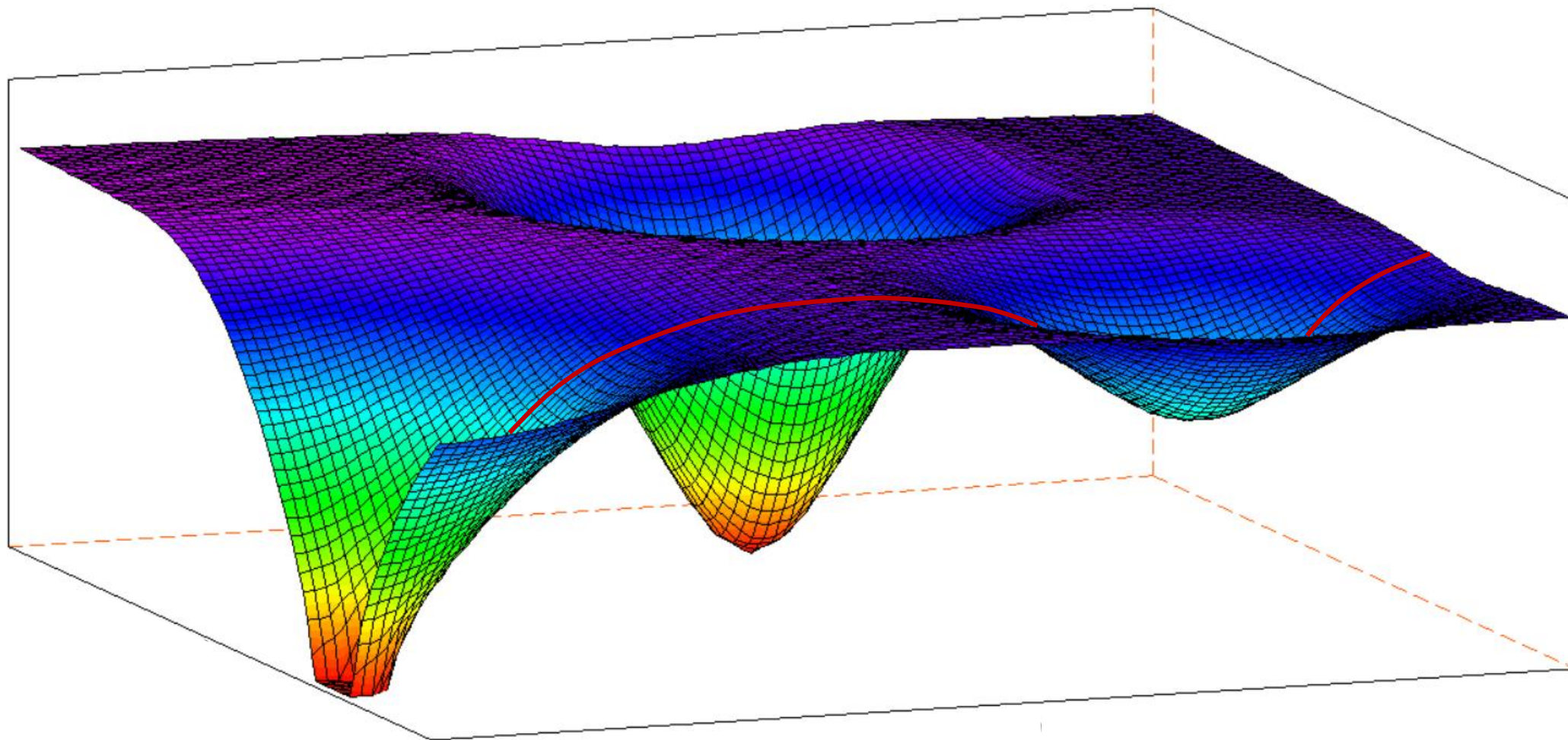
*But there's still more to this story.*

*The upside-down chair curve represents a two-dimensional "slice" through a three-dimensional energy landscape—a landscape that reveals the choice humanity faces between good and terrible futures.*

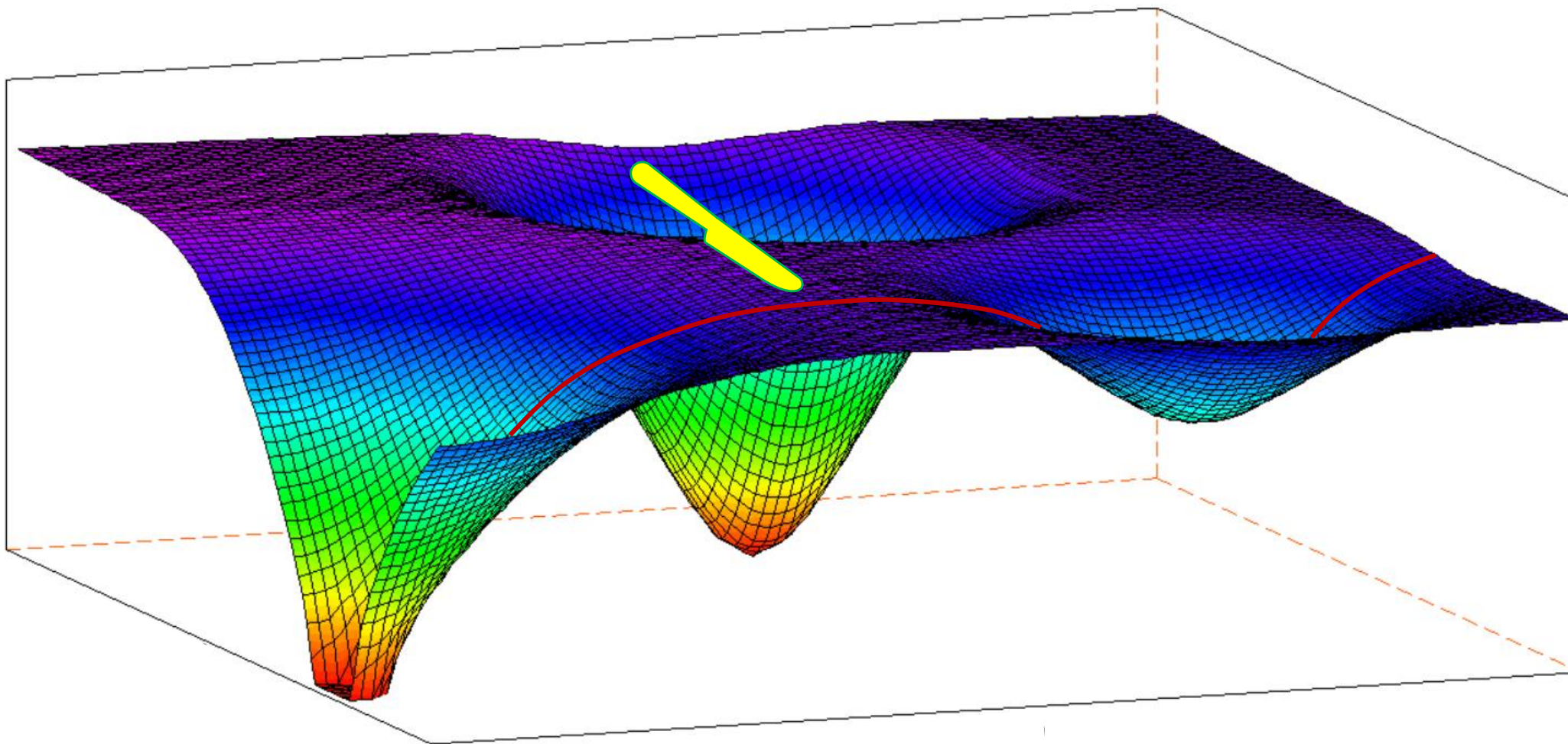




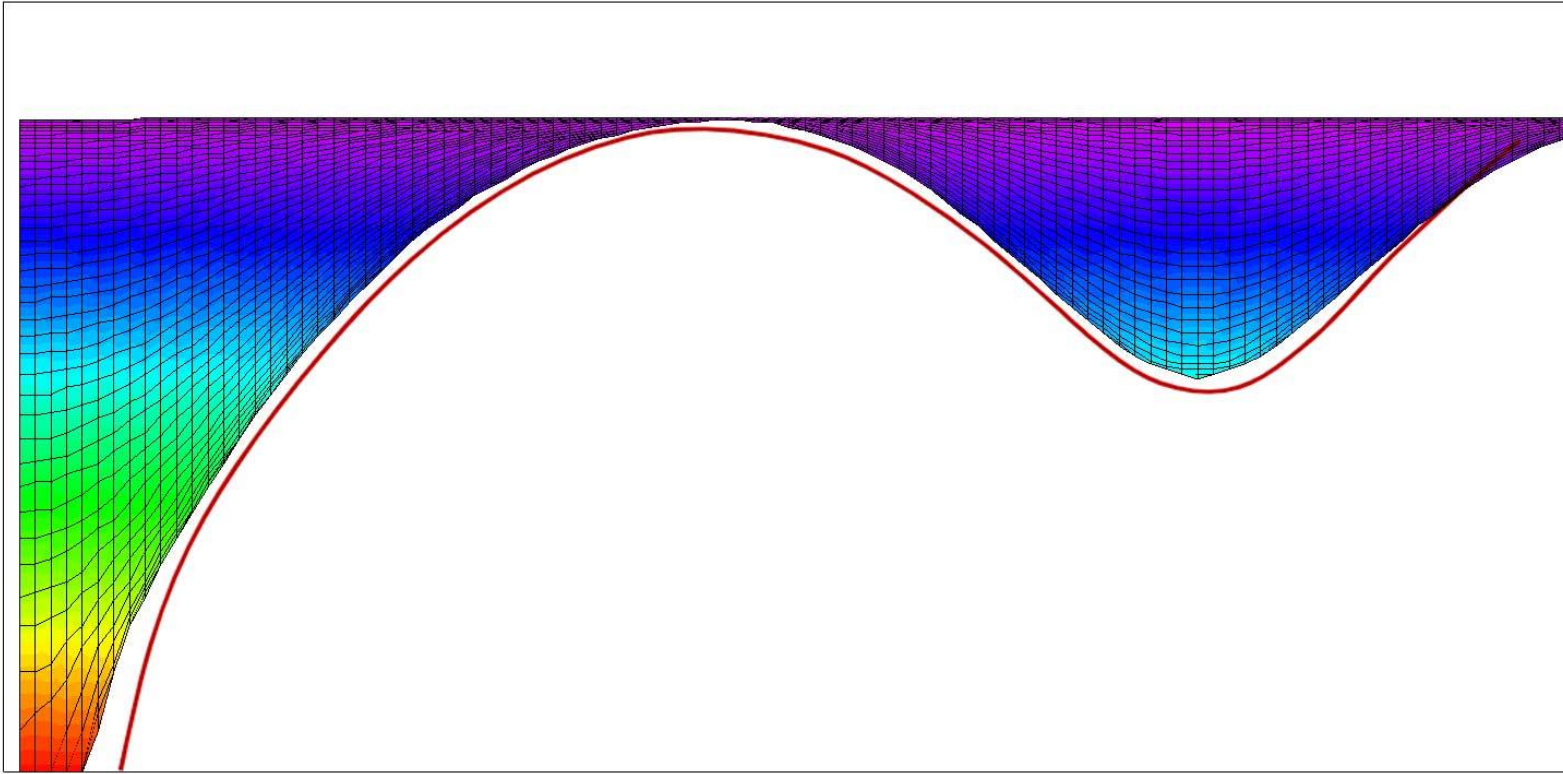
*It looks  
something like  
this.*



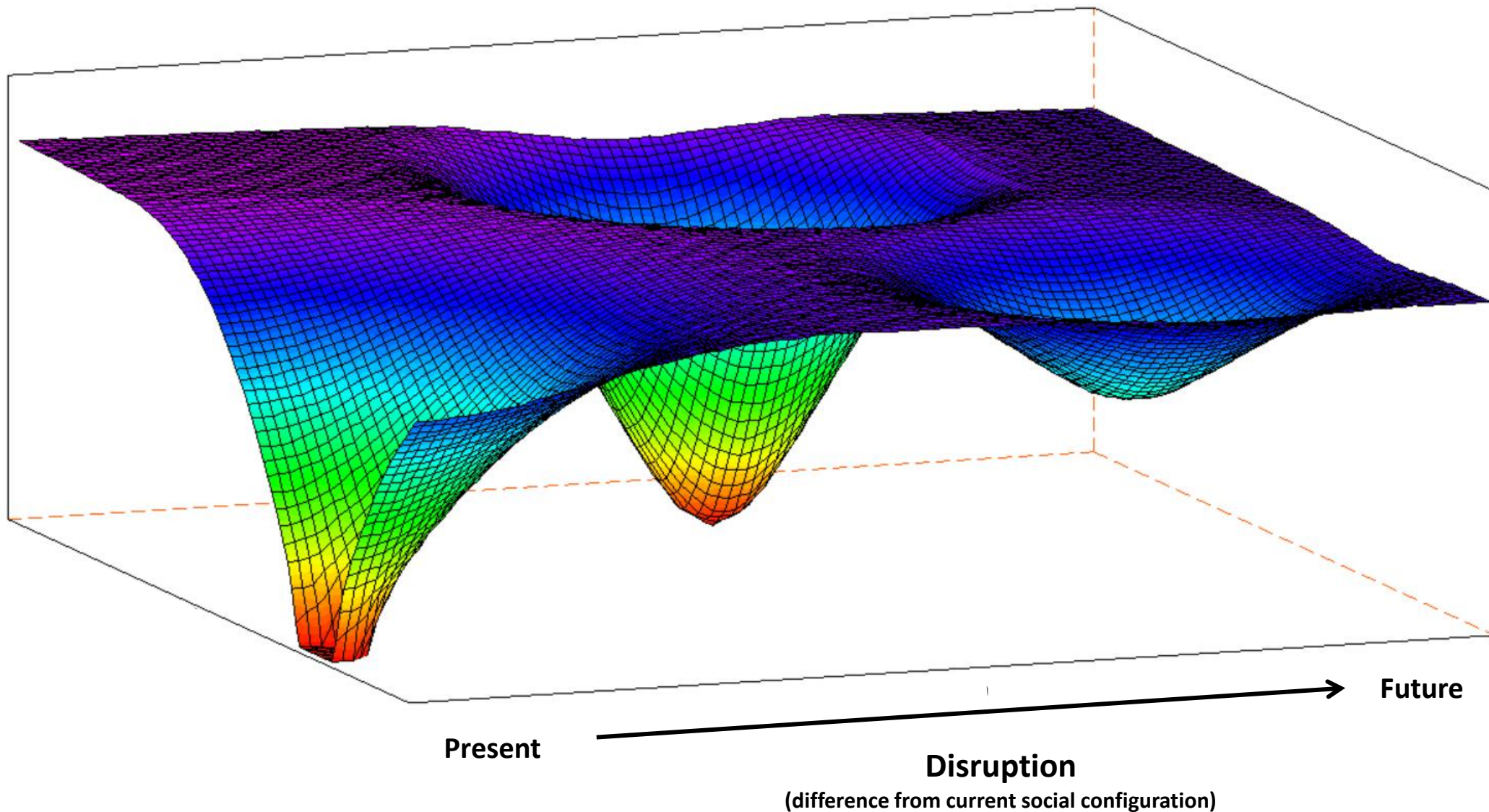
*The previous curve is shown superimposed on the landscape. It runs left to right through the lowest points of the two front basins.*



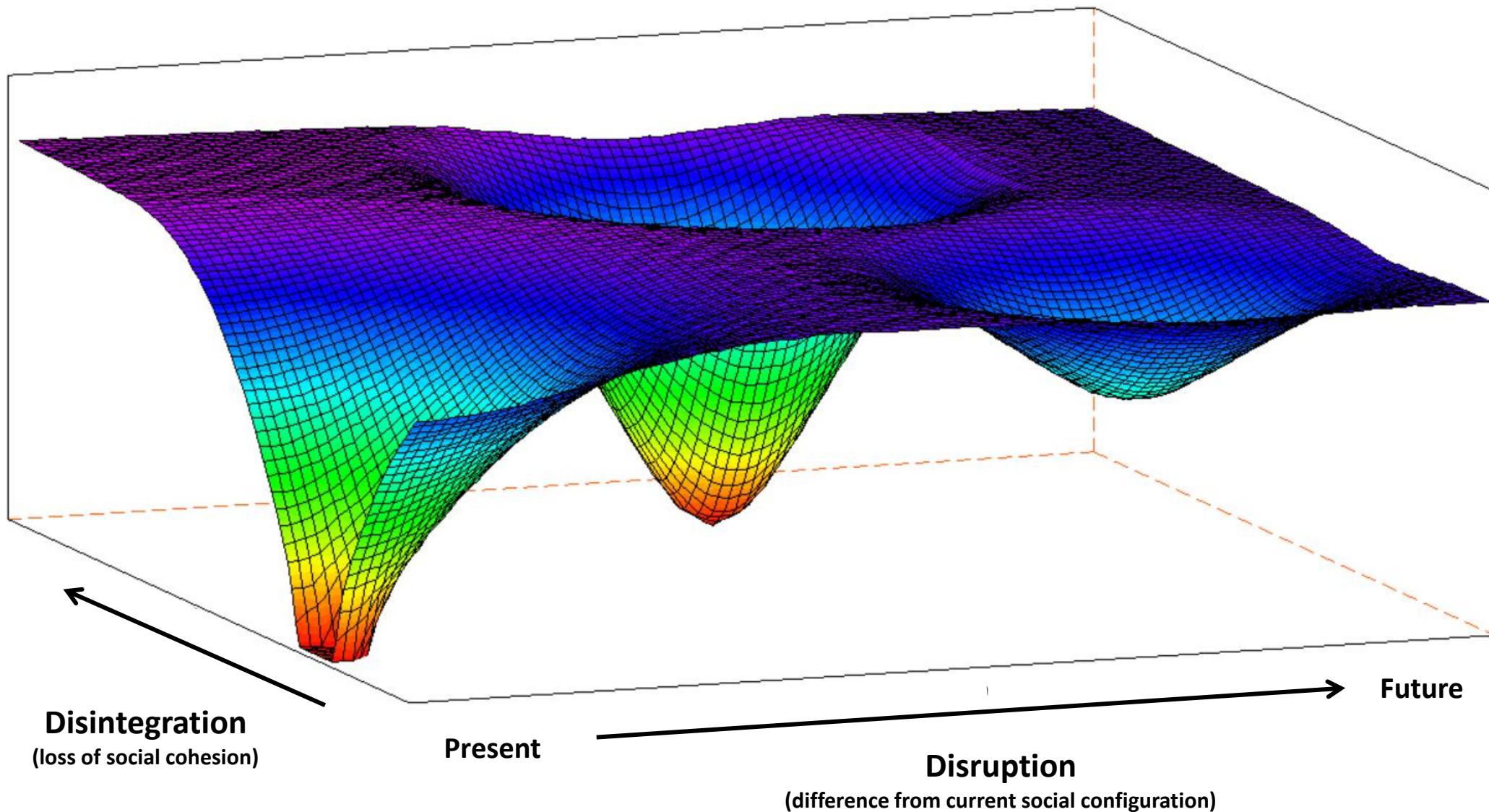
*Imagine a knife slicing through the landscape along the red line. The front edge of the landscape would then have the same shape as the curve.*



*As we see  
here.*



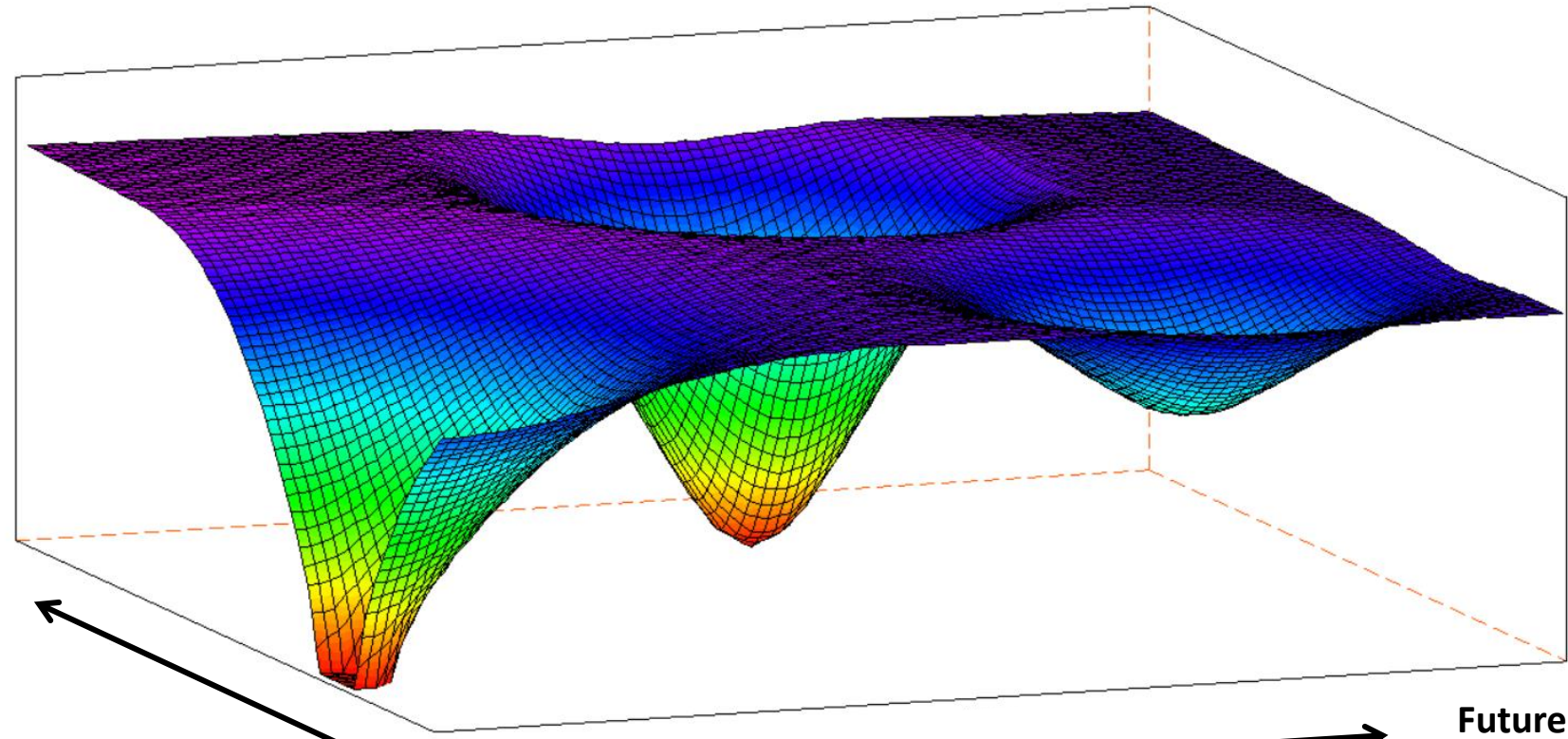
*The dimension along the front of this three-dimensional landscape remains "Disruption."*



*The dimension along the left side is new. It represents "Disintegration," or decreasing social cohesion, including loss of interpersonal and intergroup trust, loss of normative consensus across groups, institutional breakdown, and increasing interpersonal and intergroup violence.*

*The vertical dimension is again "Instability."*

**Instability**  
(susceptibility to nonlinear change)

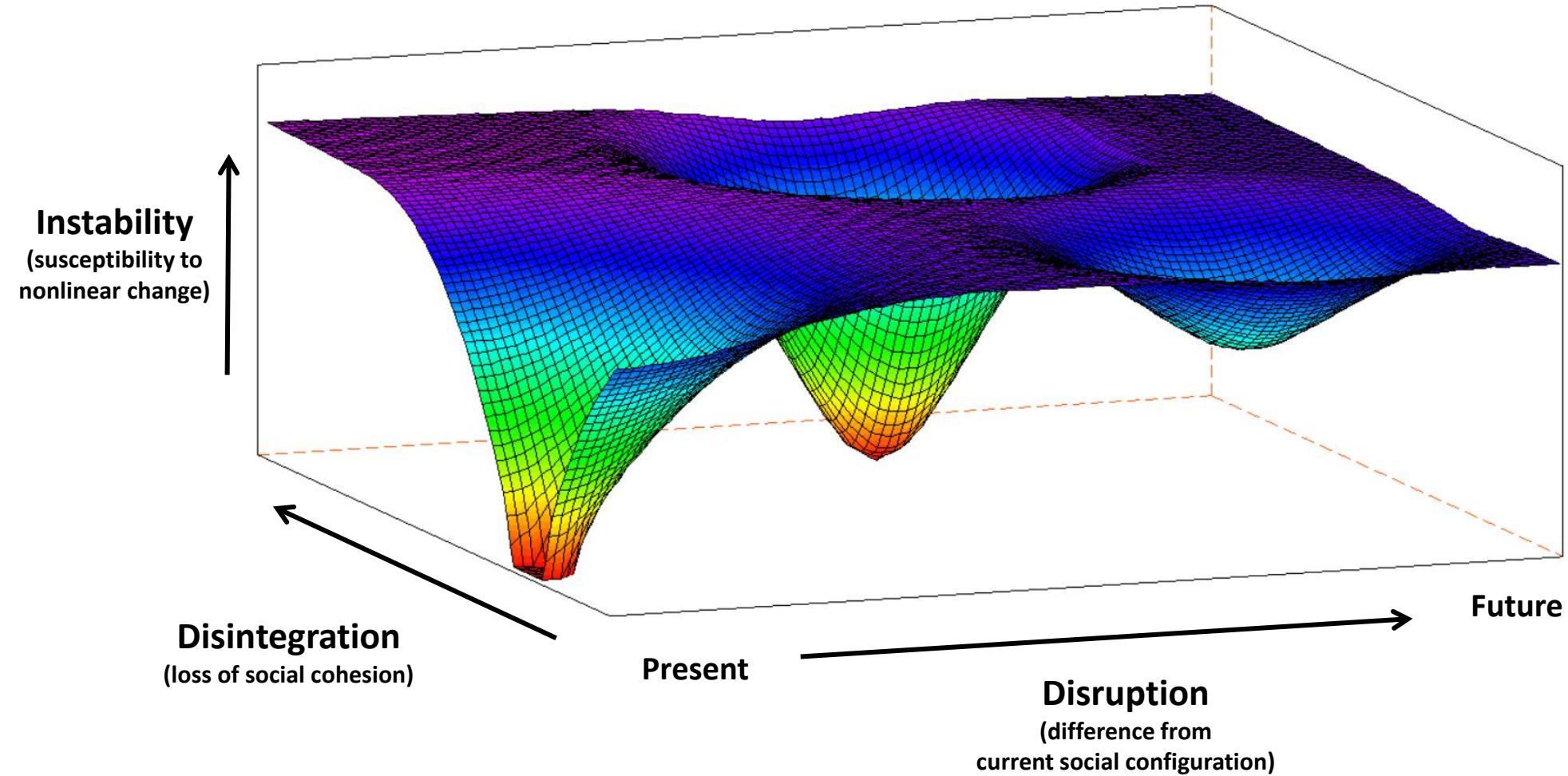


**Disintegration**  
(loss of social cohesion)

Present

**Disruption**  
(difference from current social configuration)

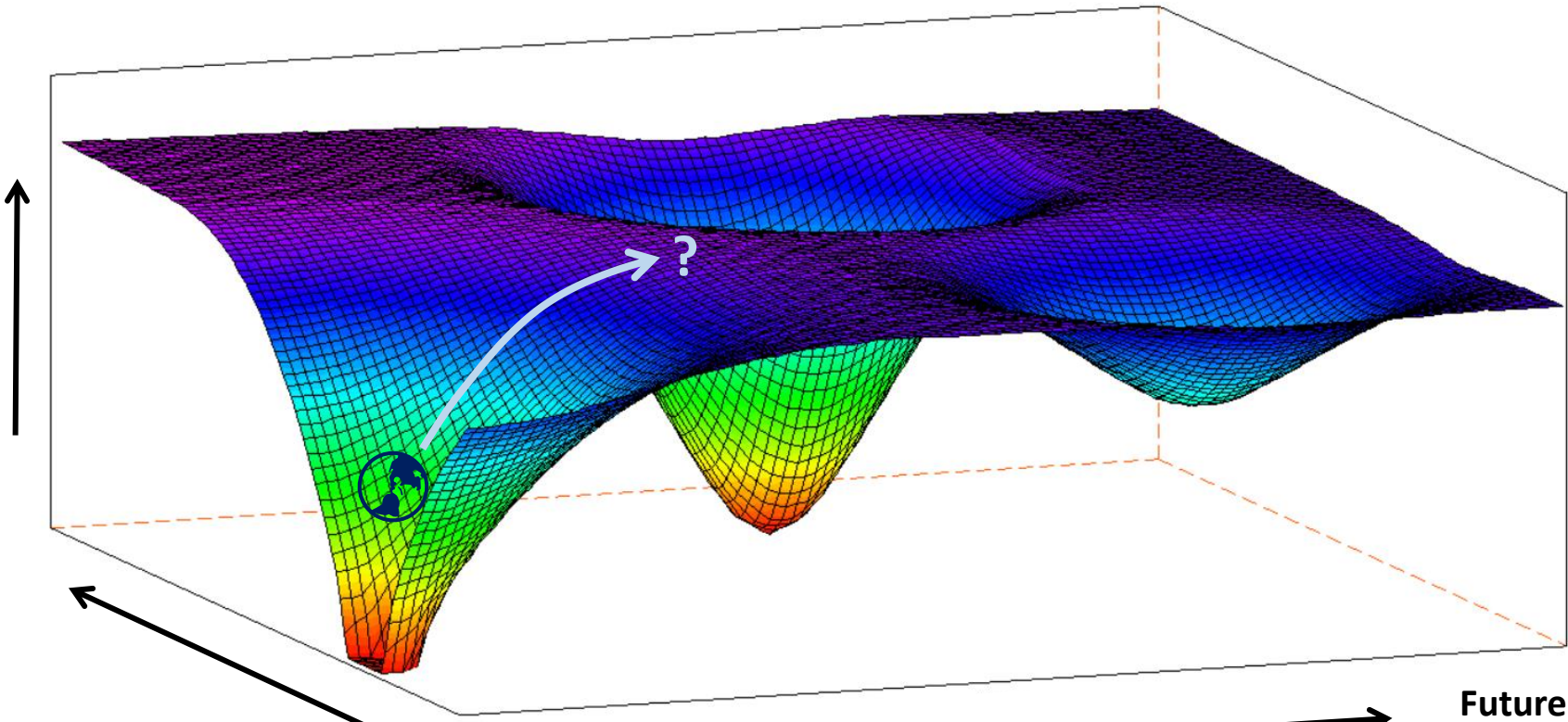
Future



*Disruption, disintegration, and instability are three causally distinct variables. So it's quite possible to have a situation of stable disintegration, as represented by the larger basin of attraction at the back.*



**Instability**  
(susceptibility to nonlinear change)



**Disintegration**  
(loss of social cohesion)

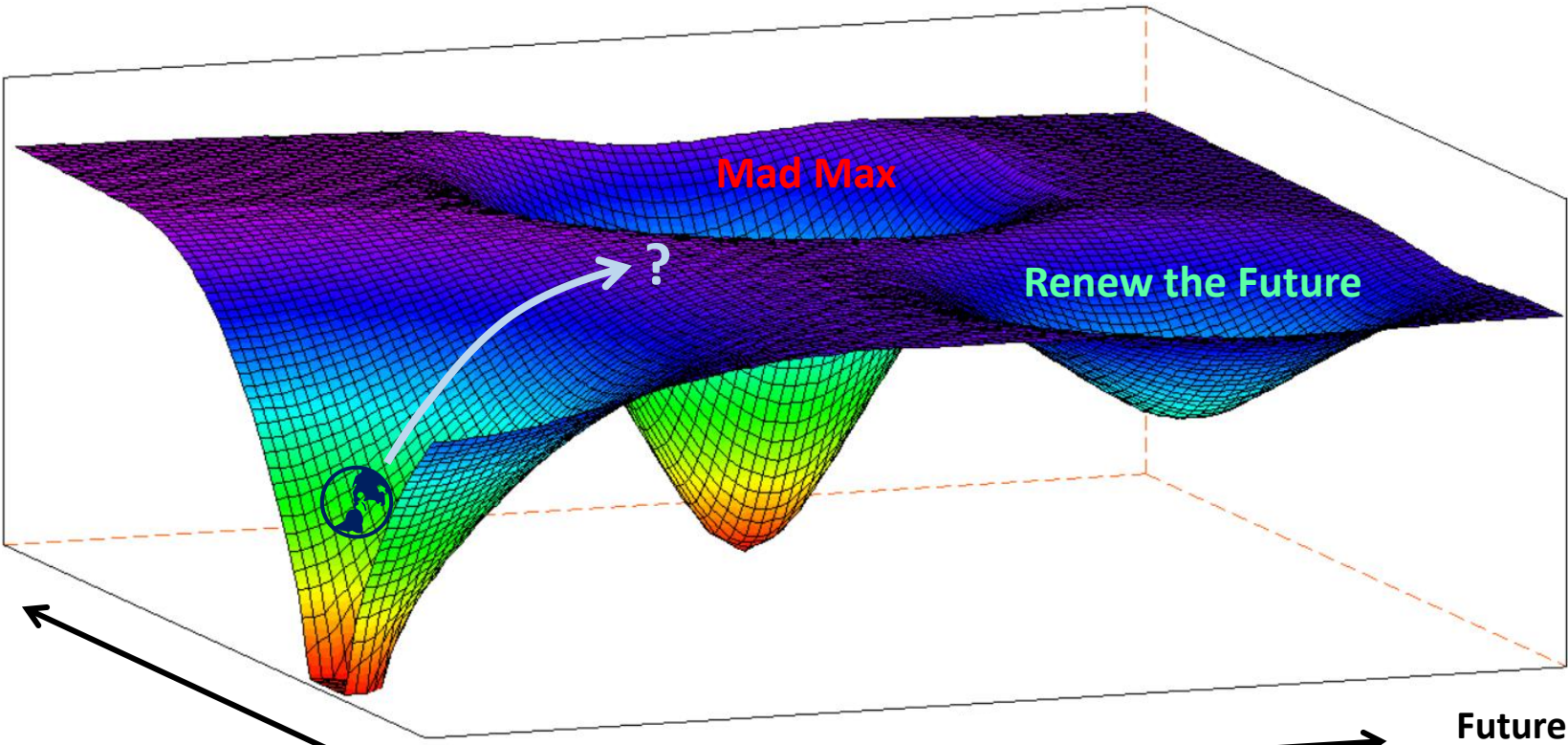
Present

**Disruption**  
(difference from current social configuration)

Future

*Humanity is currently in the basin at the front lower left, but stresses and shocks of various kinds (and a long-term shallowing of the basin) mean we're being almost certain to be knocked out of this stability zone in the next decades.*

**Instability**  
(susceptibility to  
nonlinear change)



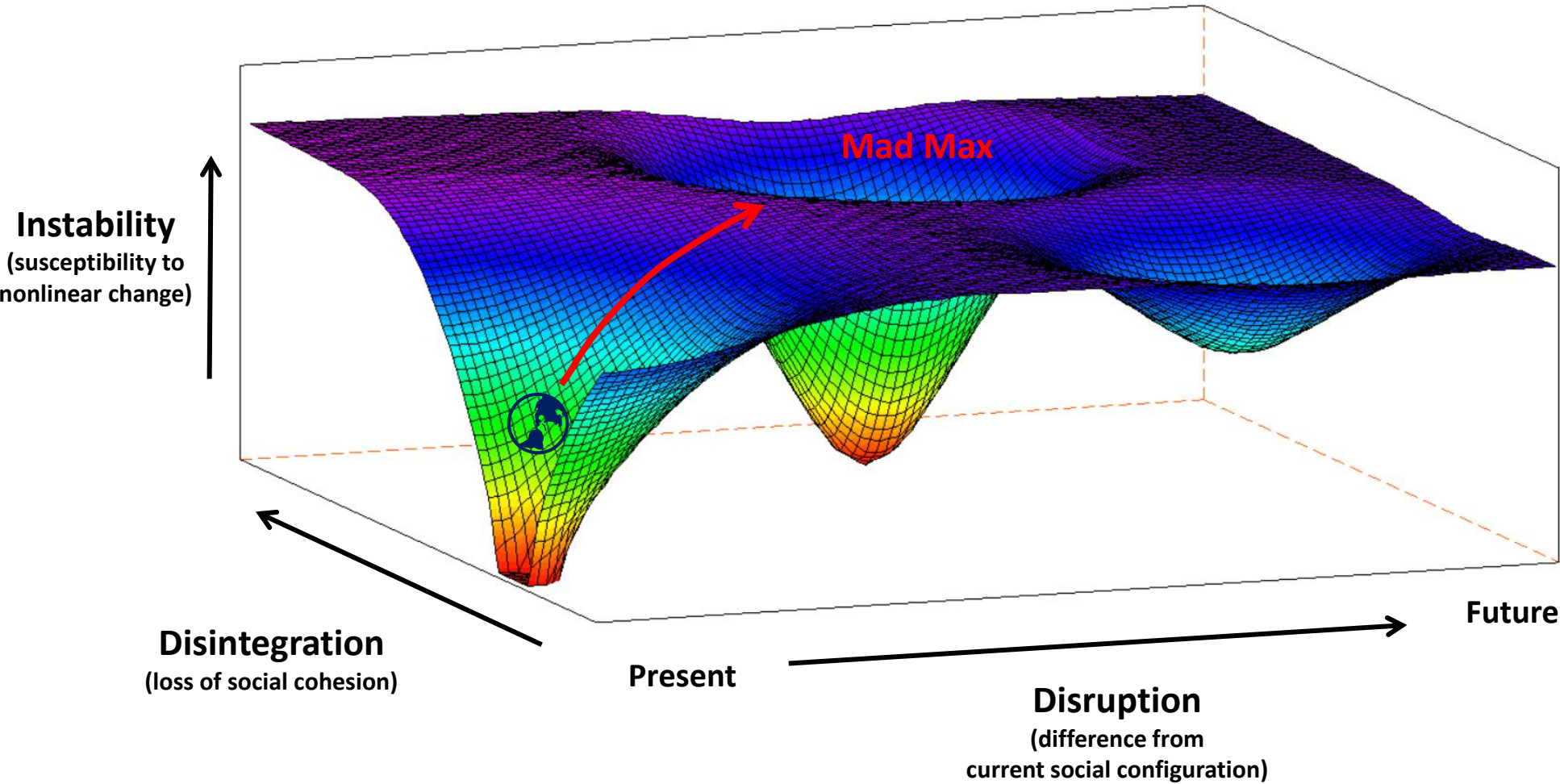
*Our two alternative  
futures are the “Mad  
Max” and “Renew the  
Future” basins, as  
described in  
chapter 20 of  
Commanding Hope.*

**Disintegration**  
(loss of social cohesion)

**Present**

**Disruption**  
(difference from  
current social configuration)

**Future**

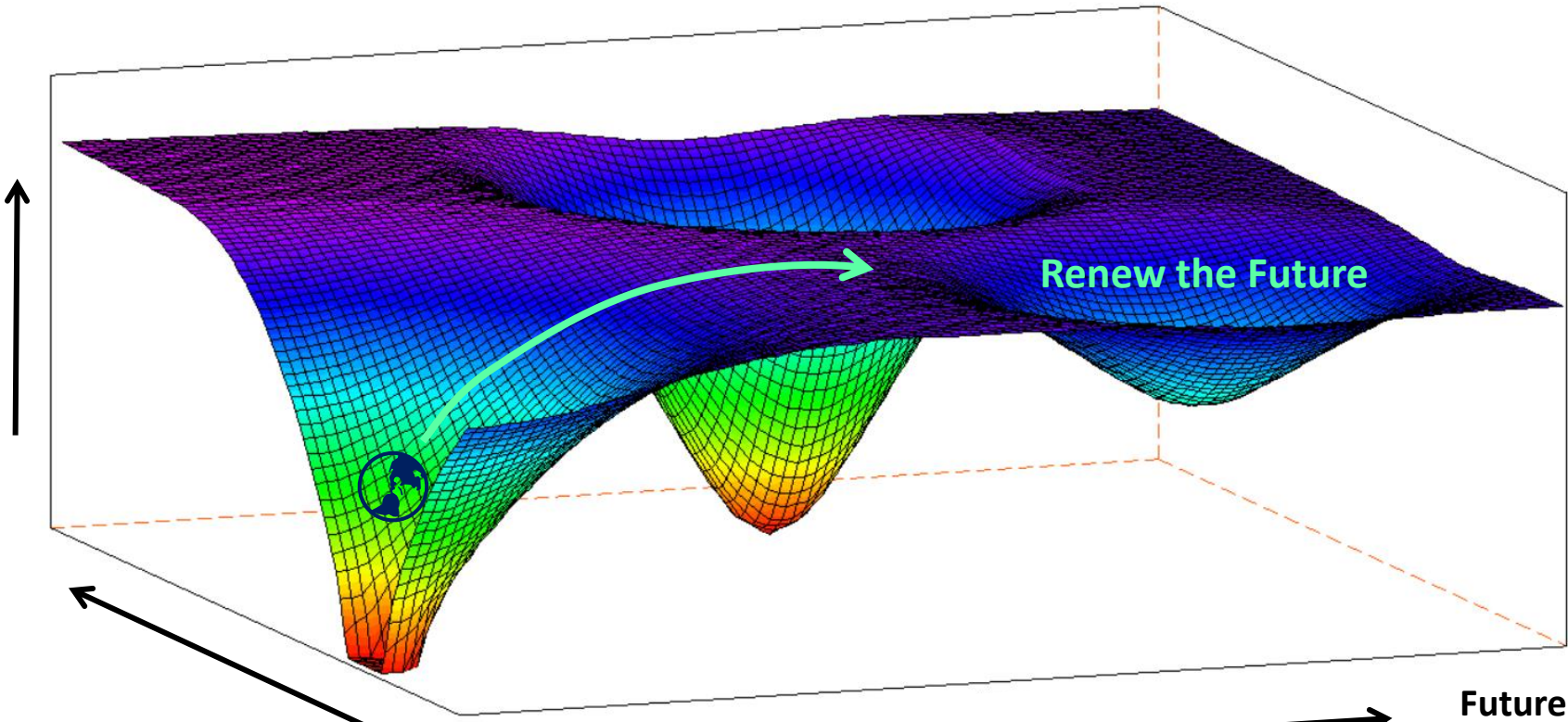


*Mad Max represents a future of wholesale loss of institutional stability and social cohesion. Think of the mess in Haiti today writ globally.*

*This basin is broad and deep. It represents stable disintegration. If humanity falls into Mad Max, that's likely where we're going to stay.*

*It's also relatively close; a moderate amount of social disruption, exploited by opportunistic actors, could propel us there.*

**Instability**  
(susceptibility to nonlinear change)



**Disintegration**  
(loss of social cohesion)

Present

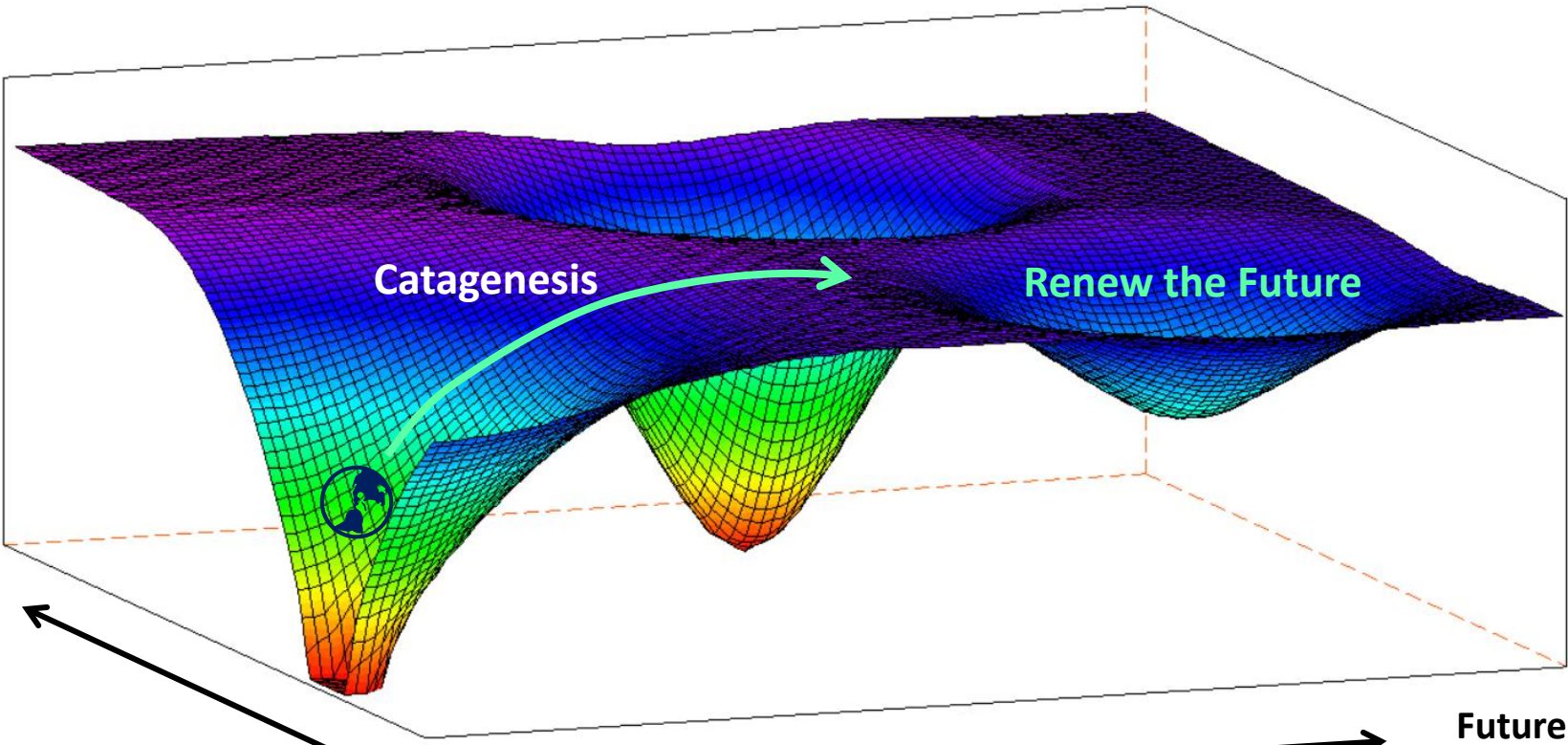
**Disruption**  
(difference from current social configuration)

Future

Renew the Future

*The Renew the Future basin offers a possible socially cohesive alternative, but the basin is shallower and its watershed smaller. It's harder to reach, because getting there entails a more profound reconfiguration of our worldviews, institutions, and technologies (i.e., a greater level of disruption). Because it is less stable, it is more demanding. We'll have to work hard to stay there.*

**Instability**  
(susceptibility to  
nonlinear change)



*The path to the Renew the Future basin would be a process I've called "catagenesis," or renewal through crisis and guided system transformation (described in chapter 11 of The Upside of Down).*

*It could get us to enough.*

Thanks to:

Joe MacInnis, for suggesting I try a 3D representation;

Ruben Nelson, for advice on basin positioning;

Bentley Allan, for pointing out a flaw in the argument's logic;

Mike Lawrence, for helping me turn incomprehensible scribbles on a white board into a working 3D illustration;

and Chris Carignan, for his brilliant work with SciLab to represent the detailed 3D landscape.