

# GETTING TO ENOUGH

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

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October 7, 2023



## 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.



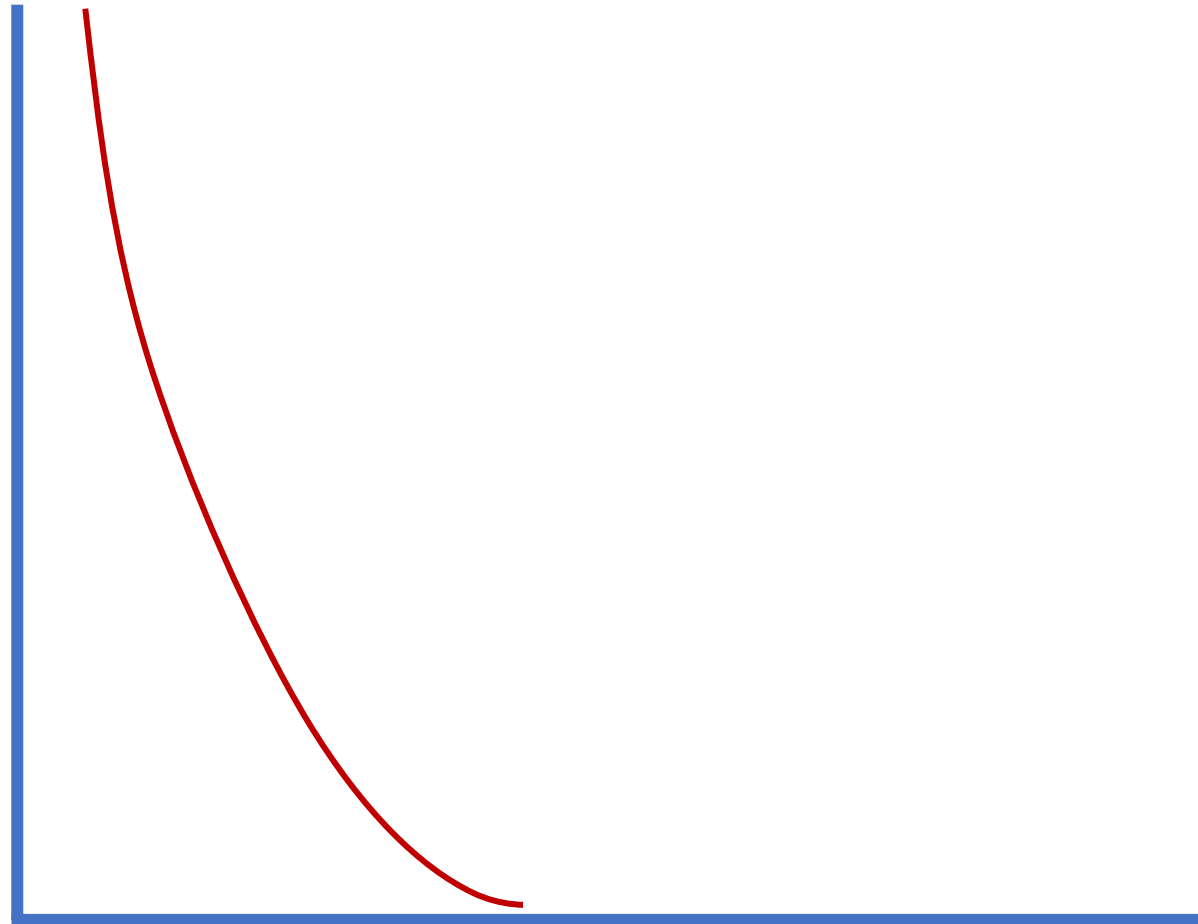
## The problem (continued):

“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.**”

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

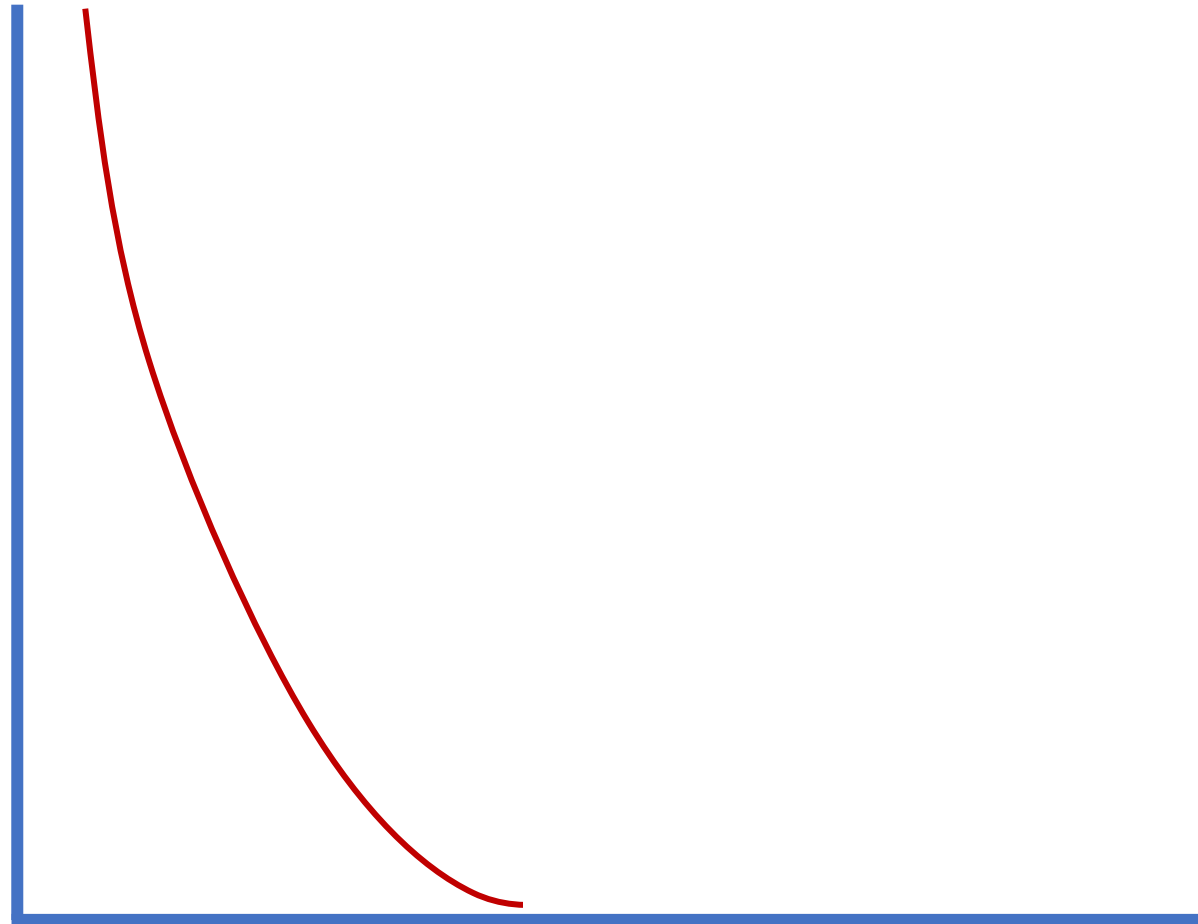
**Feasibility**  
(and number)  
of interventions



**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

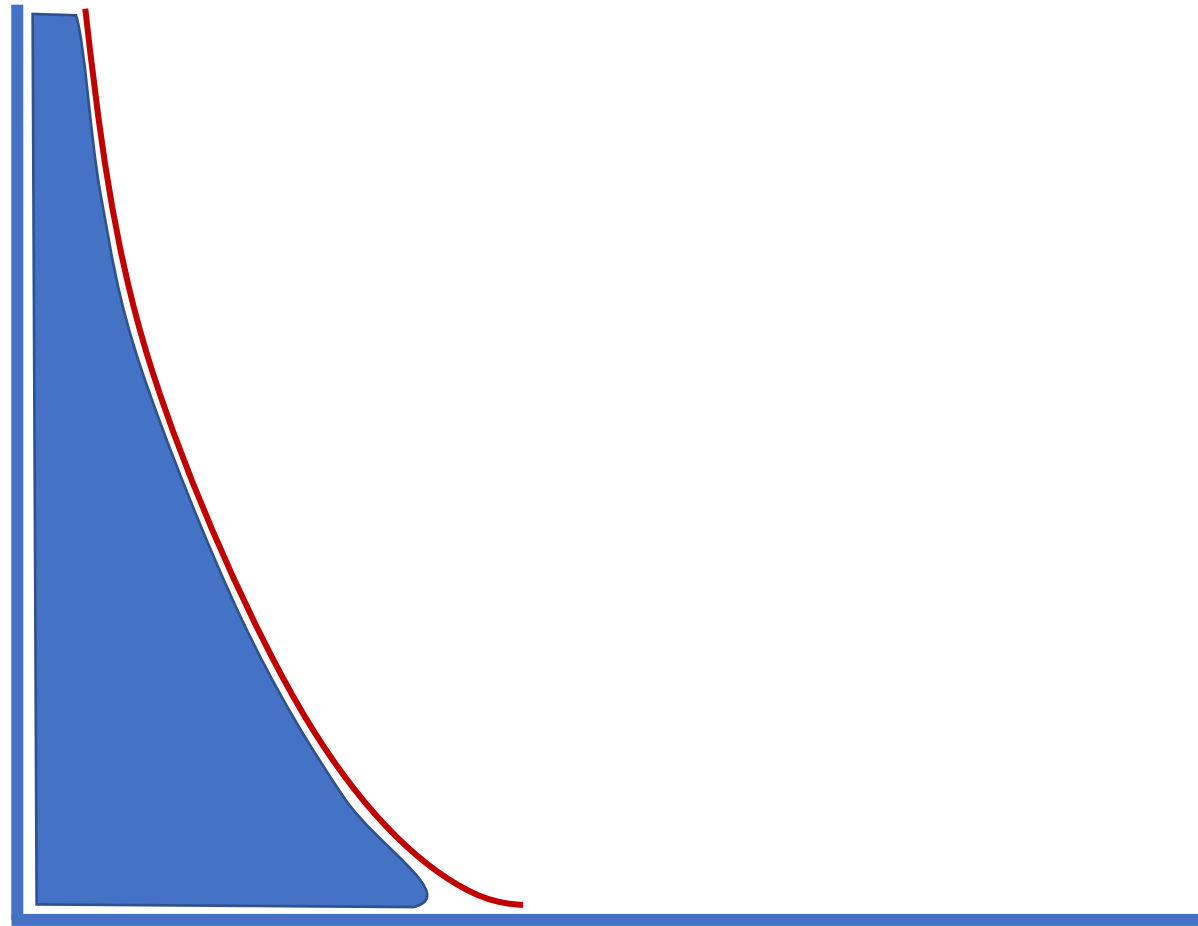


**Effectiveness**  
(and systemic disruptiveness)  
of interventions

*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

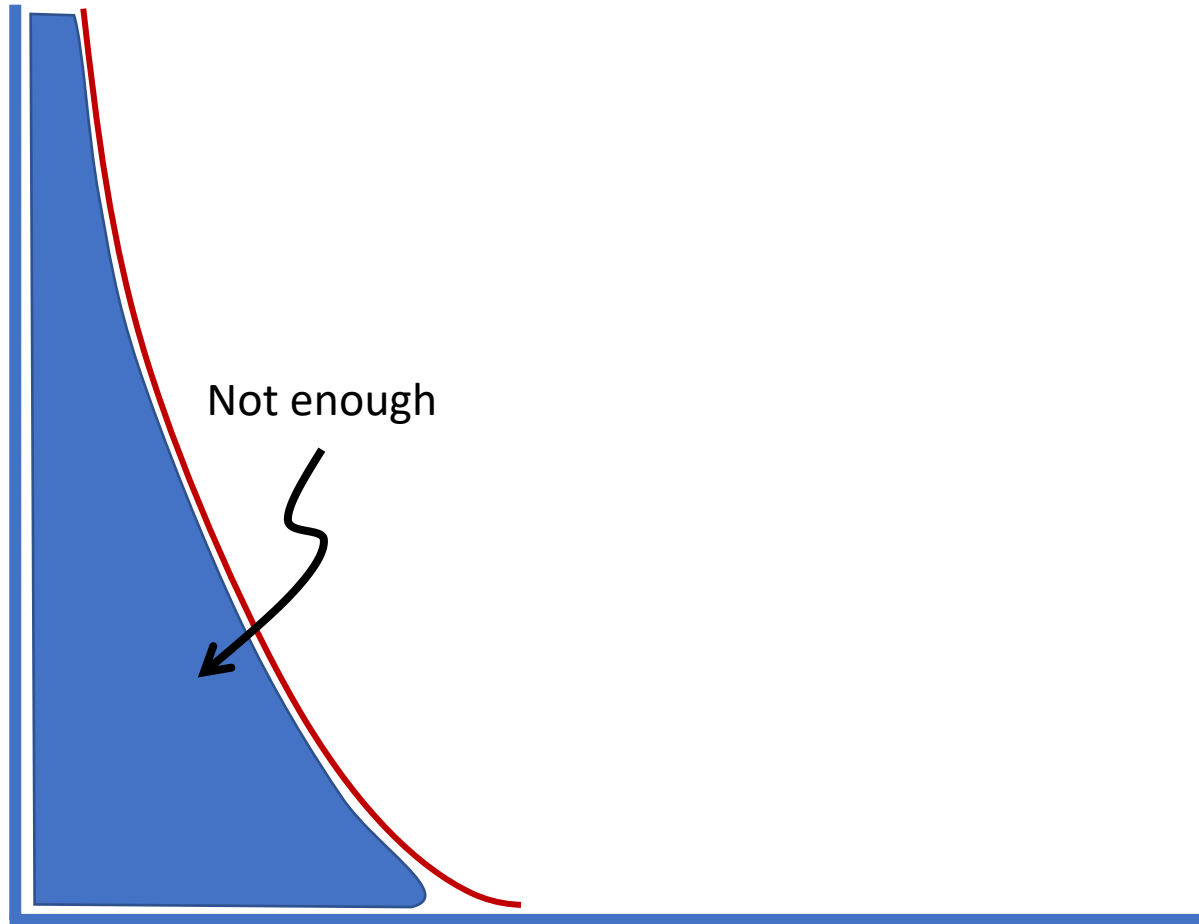


**Effectiveness**  
(and systemic disruptiveness)  
of interventions

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

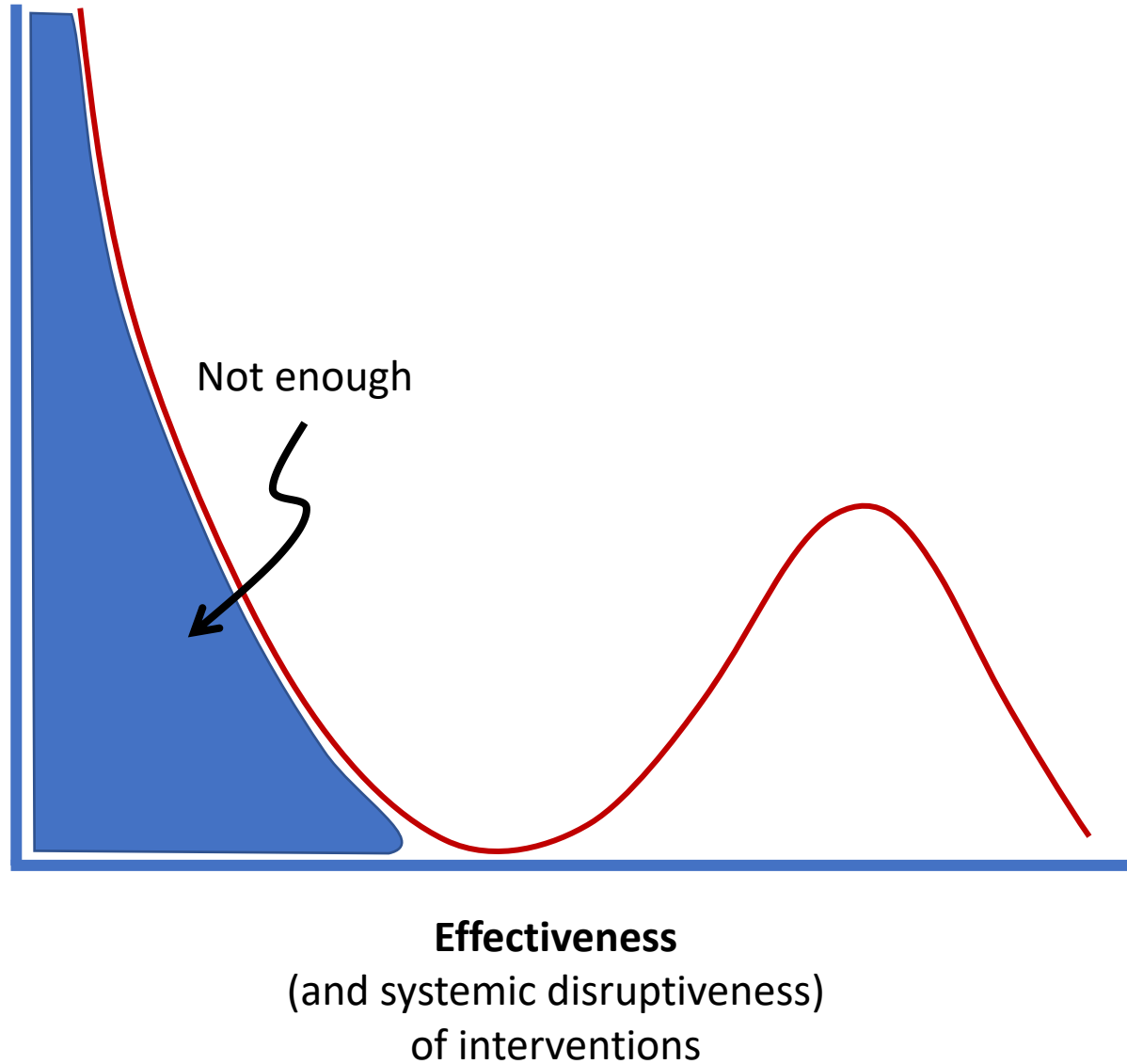
*It's not enough.*

**Feasibility**  
(and number)  
of interventions



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

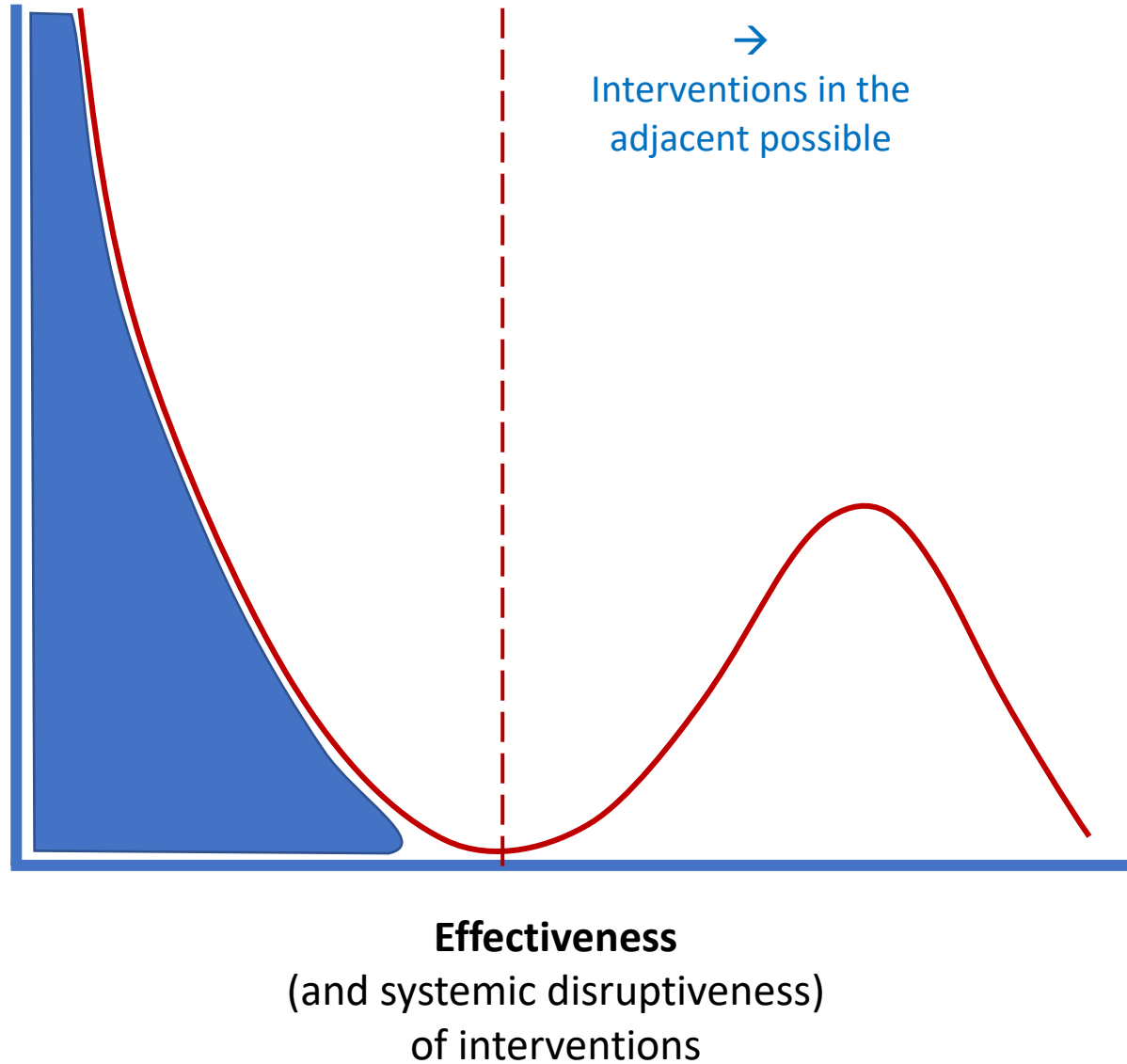
**Feasibility**  
(and number)  
of interventions



*But perhaps we're  
missing something.*

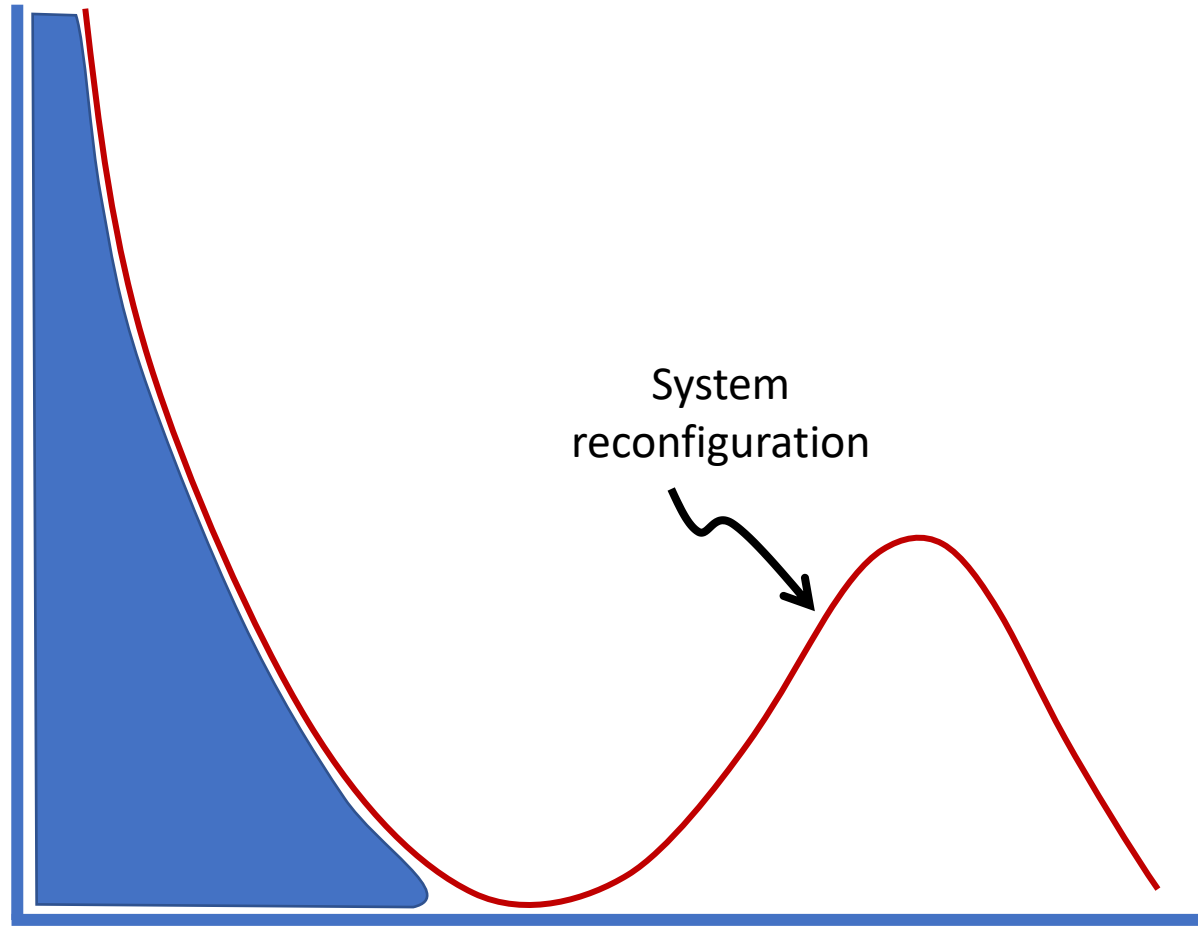


**Feasibility**  
(and number)  
of interventions



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

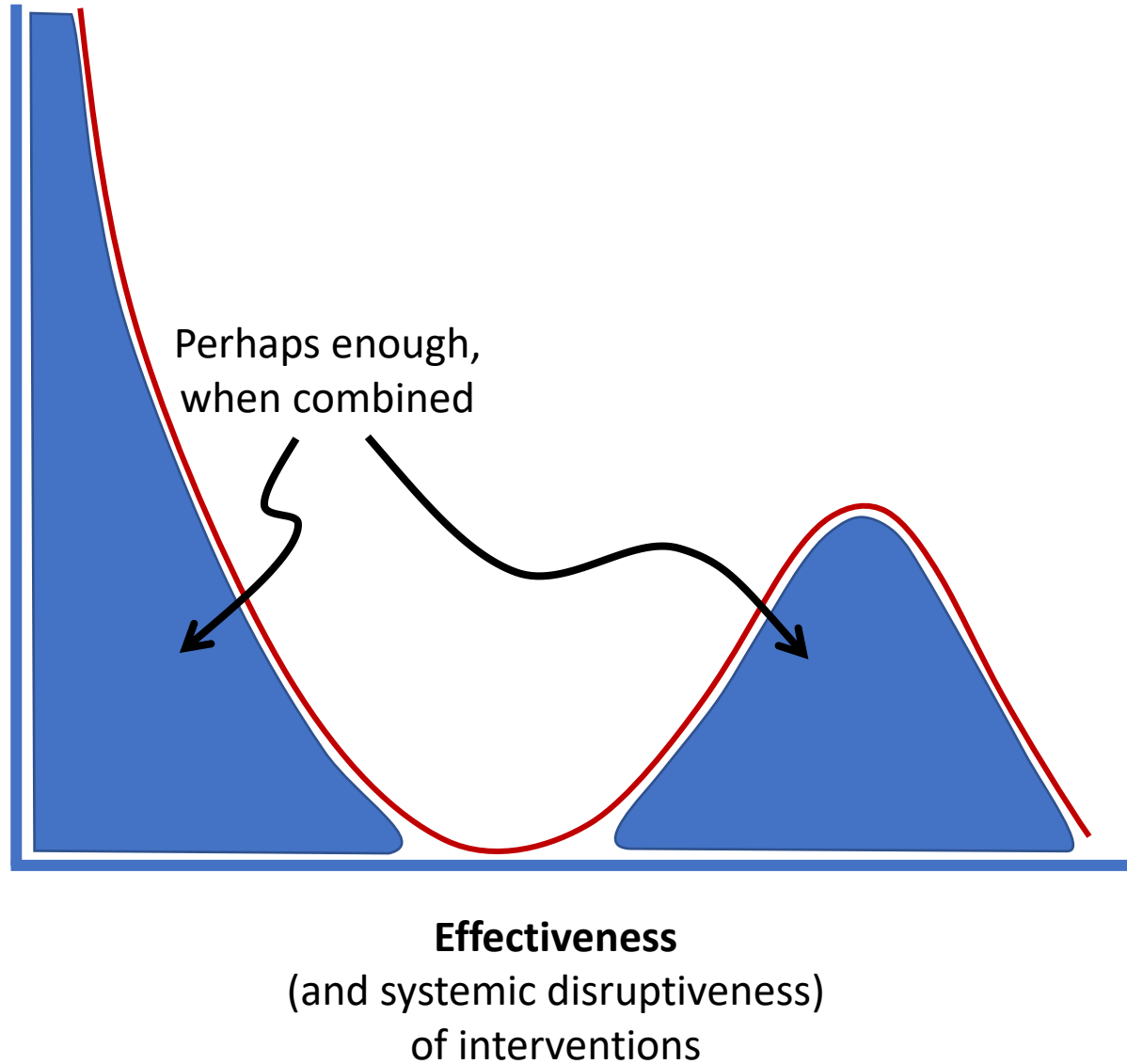
**Feasibility**  
(and number)  
of interventions



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

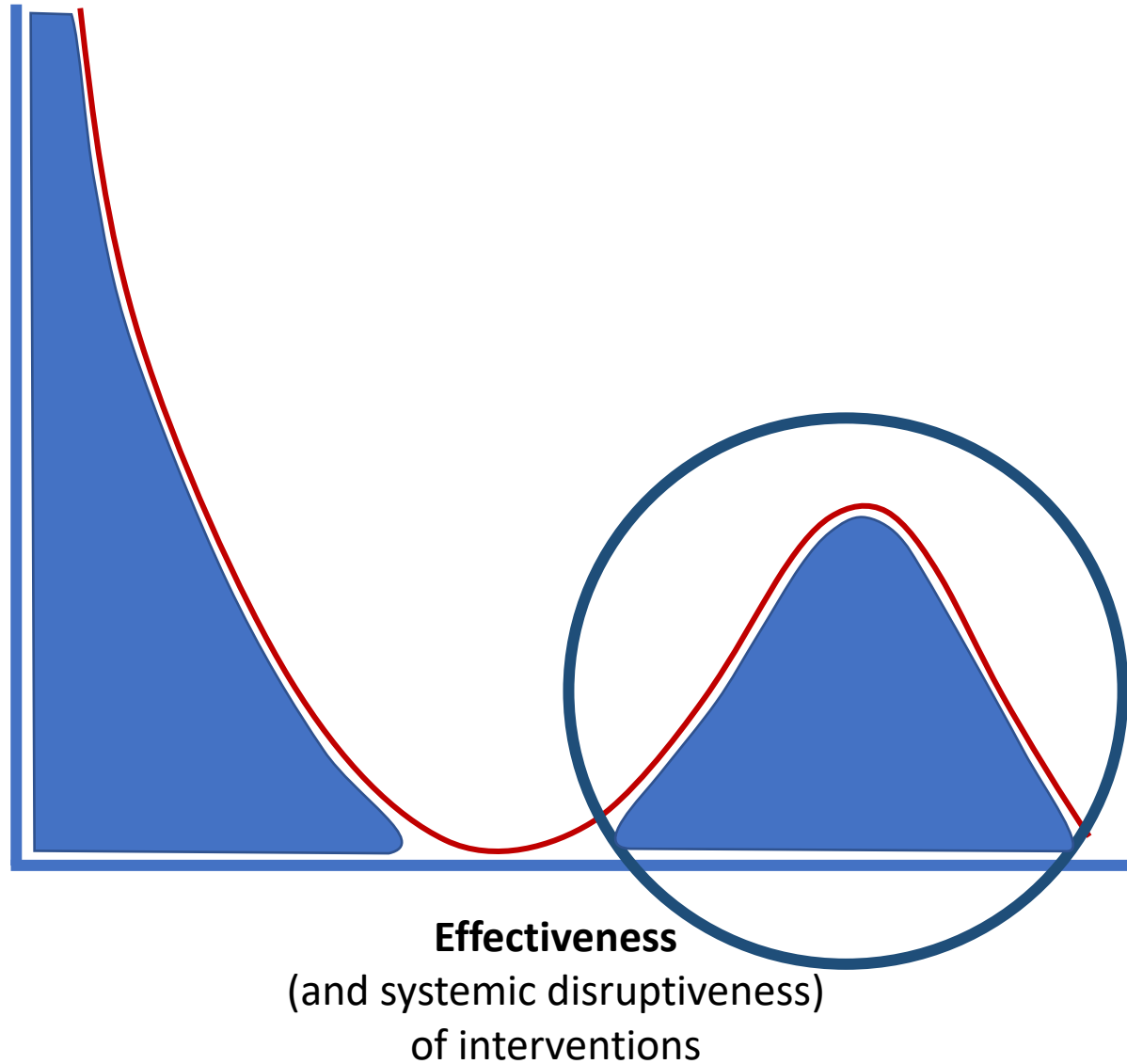
*These currently unrecognized interventions will become possible as societies—their worldviews, institutions, and technologies—reconfigure themselves in response to today's converging environmental, economic, social, and technological stresses.*

**Feasibility**  
(and number)  
of interventions



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

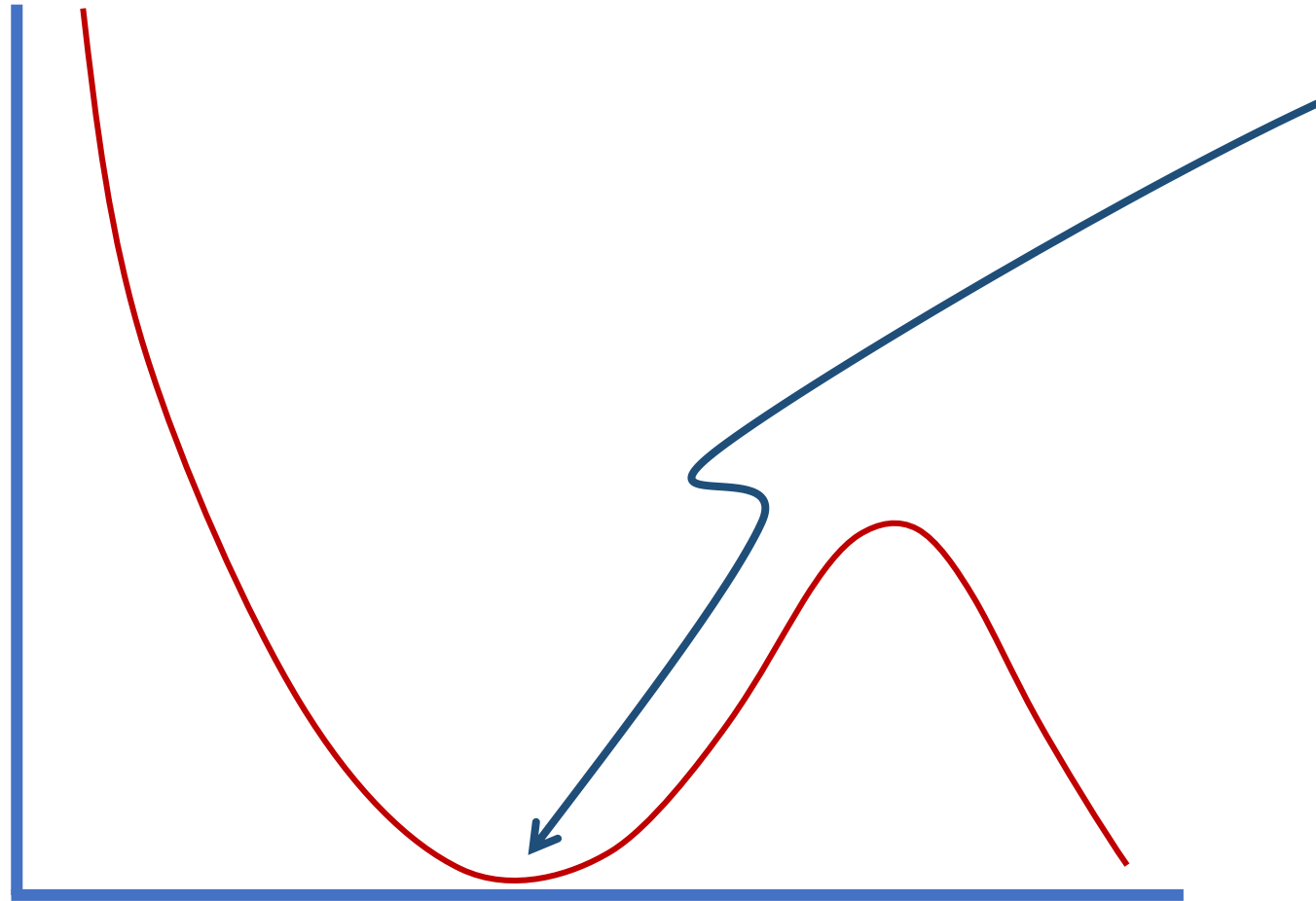
**Feasibility**  
(and number)  
of interventions



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

**We focus  
here**

**Feasibility**  
(and number)  
of interventions

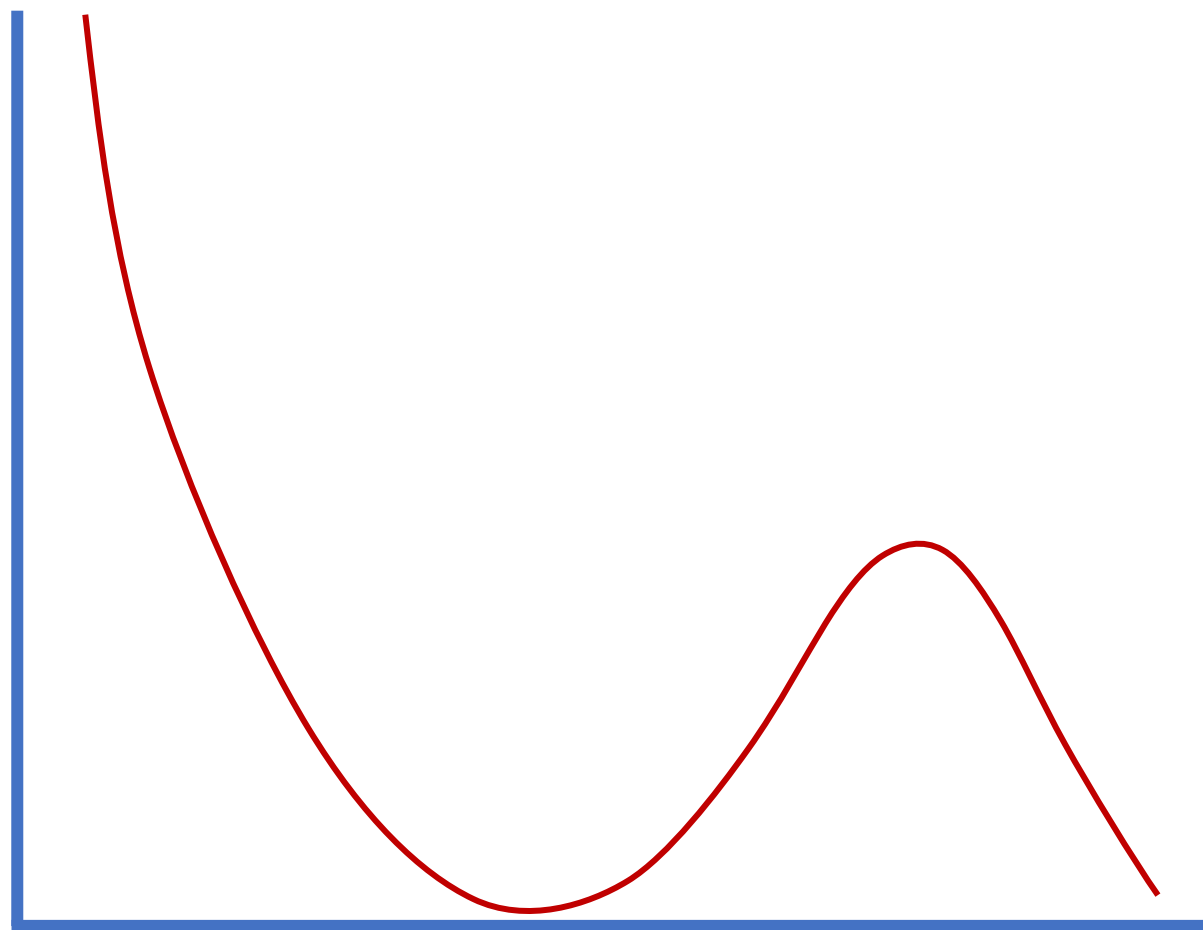


**Effectiveness**  
(and systemic disruptiveness)  
of interventions

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

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

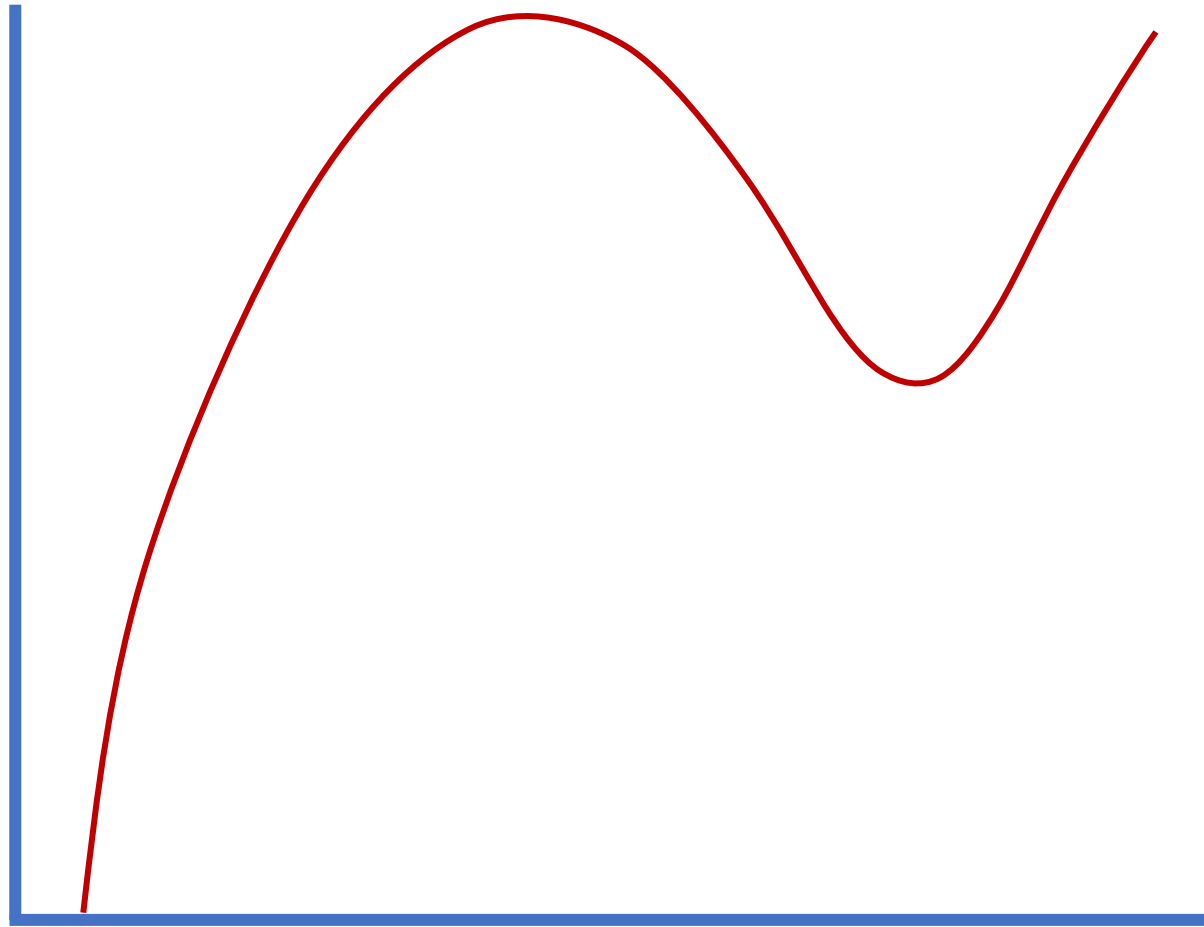
**Feasibility**  
(and number)  
of interventions



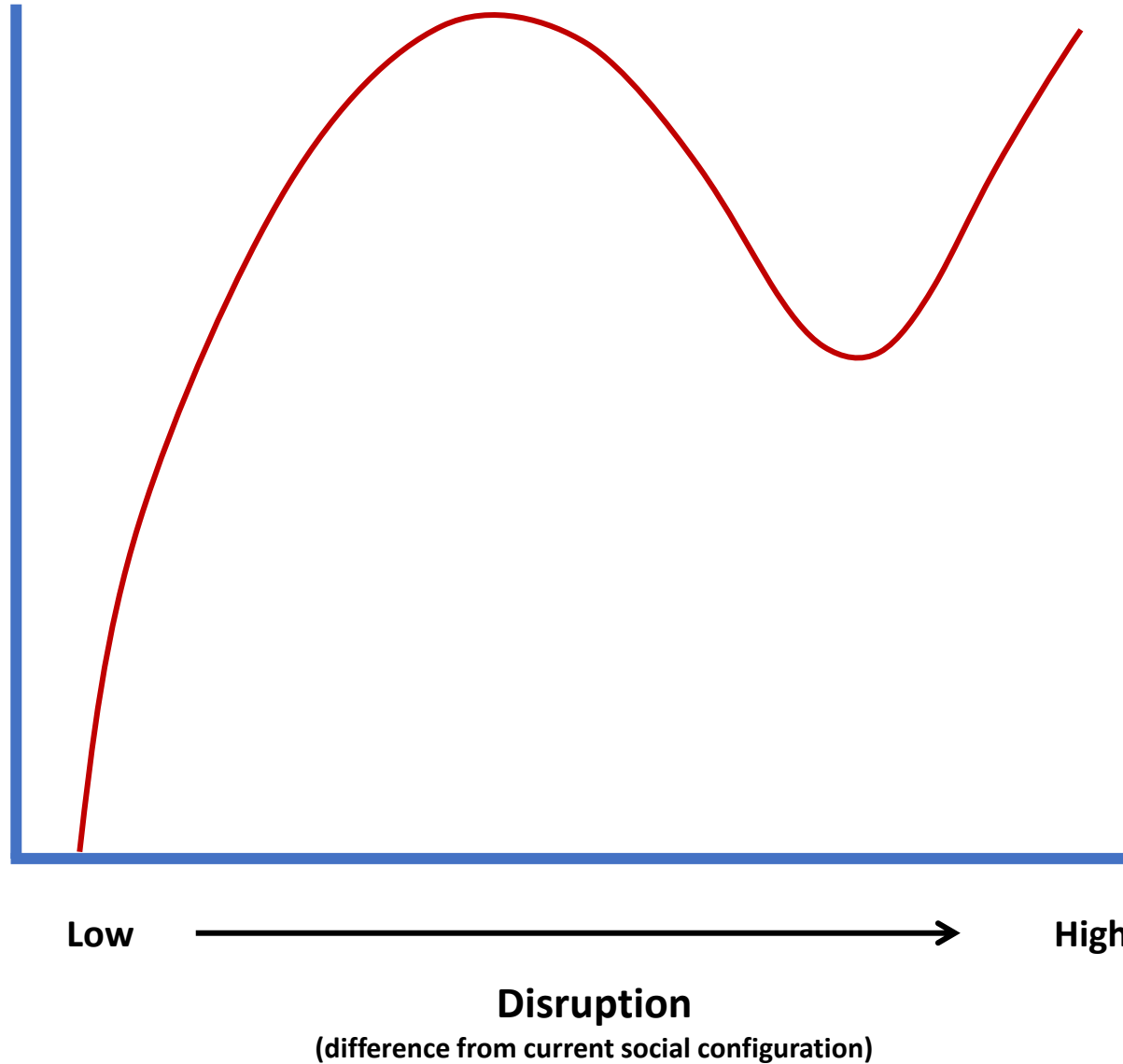
**Effectiveness**  
(and systemic disruptiveness)  
of interventions

Rotate curve  
vertically



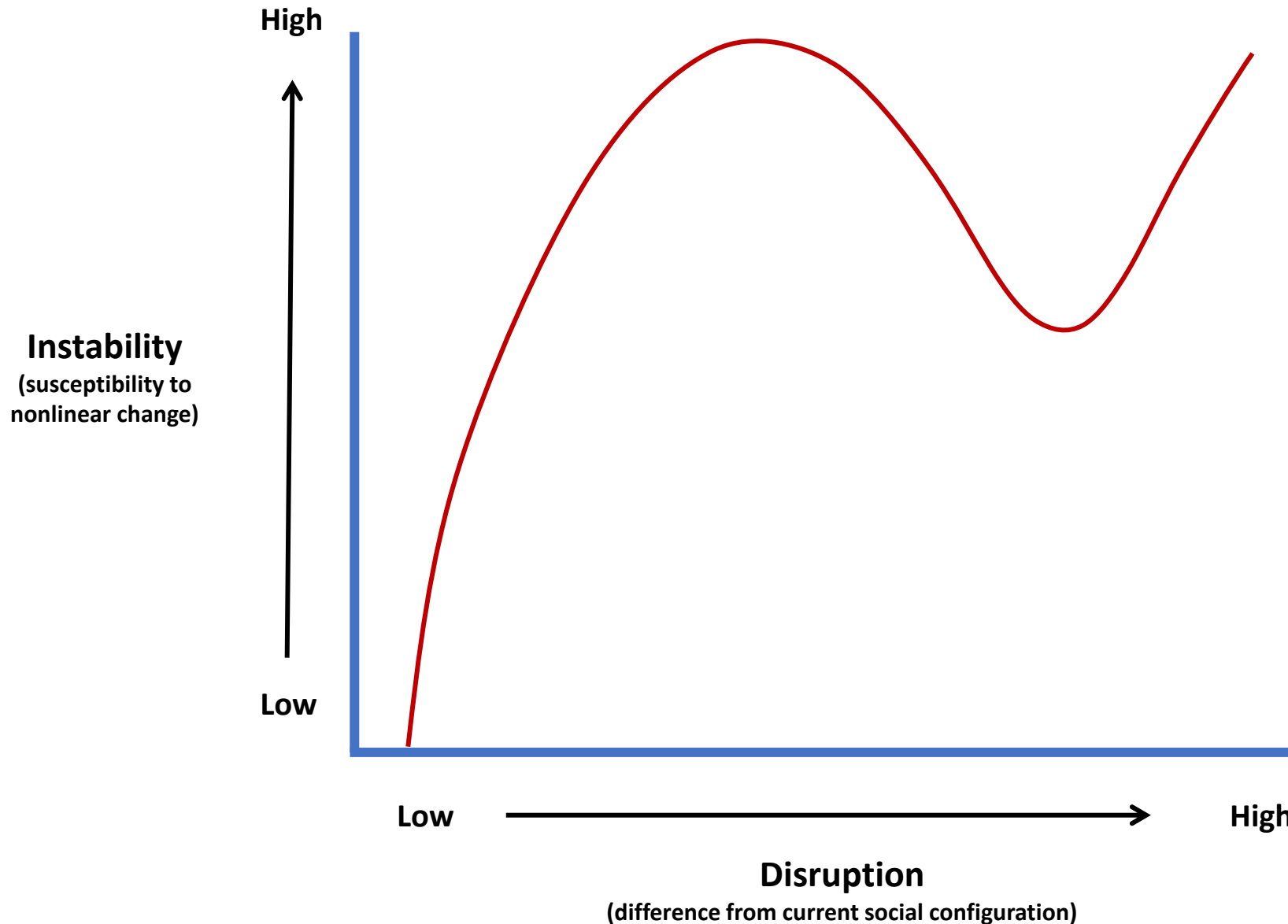


*By flipping the curve upside down, we've shifted our focus from the feasibility and effectiveness of solutions within society to the changing states of society itself.*



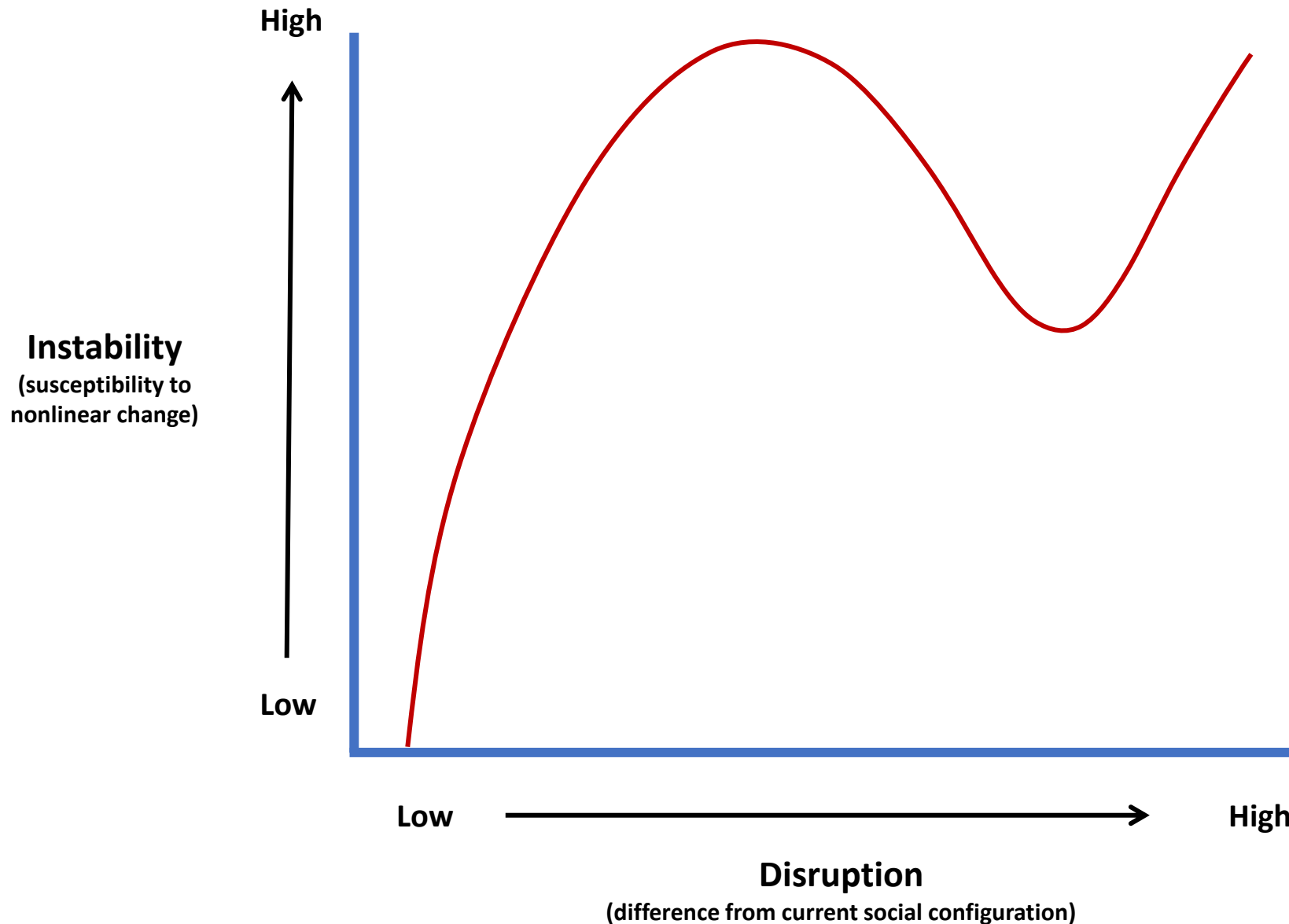
*The bottom axis still represents disruption. But now, instead of the degree of disruption induced by a discrete intervention, it's the total disruption of society by all destabilizing forces.*

*The further right on the axis, the more our society's configurations of worldviews, institutions, and technologies differ from configurations today.*



*The left axis now represents societal instability, rising from bottom to top.*

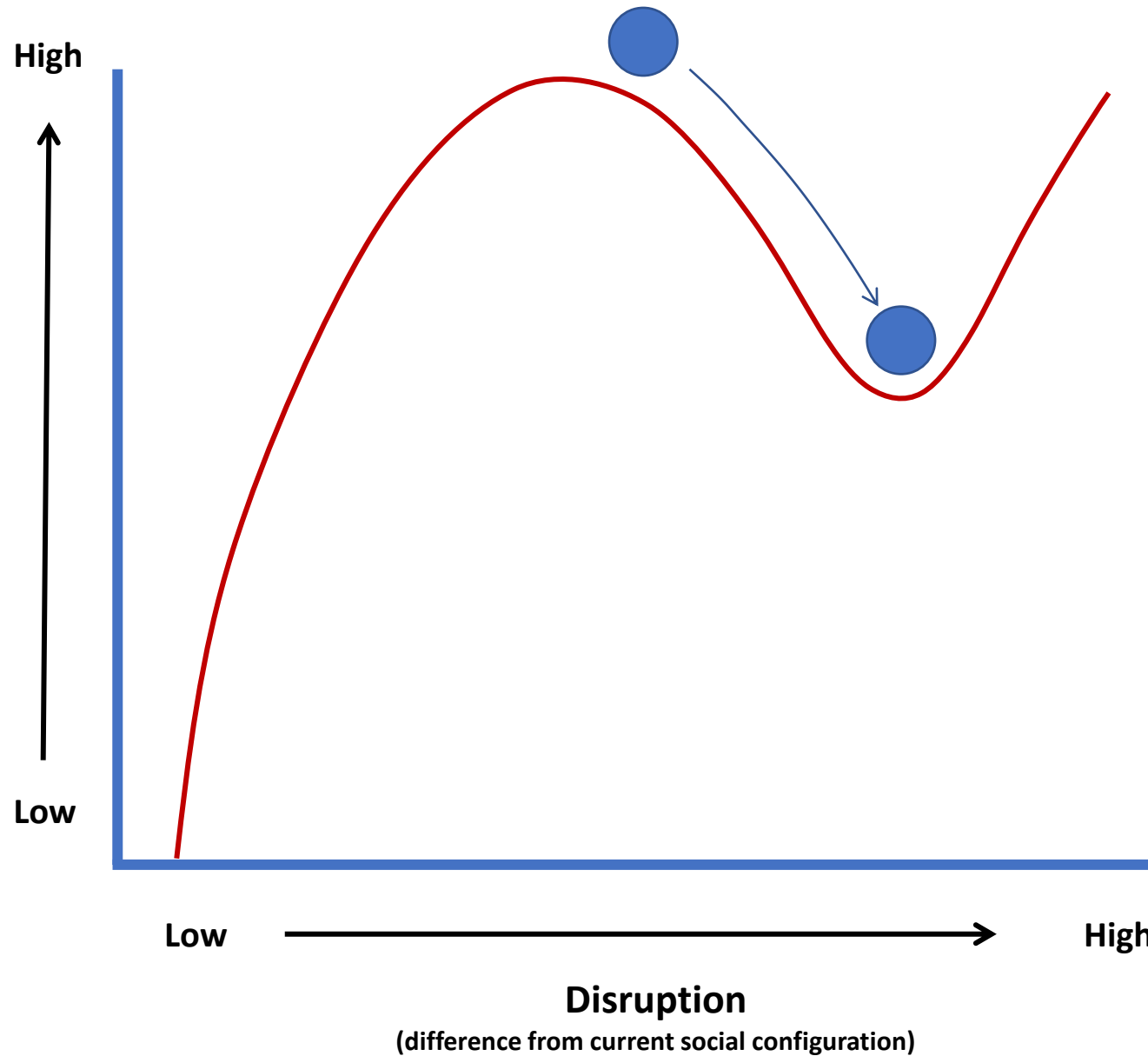
*The closer to the top, the more unstable are our society's configurations. (Technically, this means they're more susceptible to nonlinear change, so a small push can cause an enormous response).*



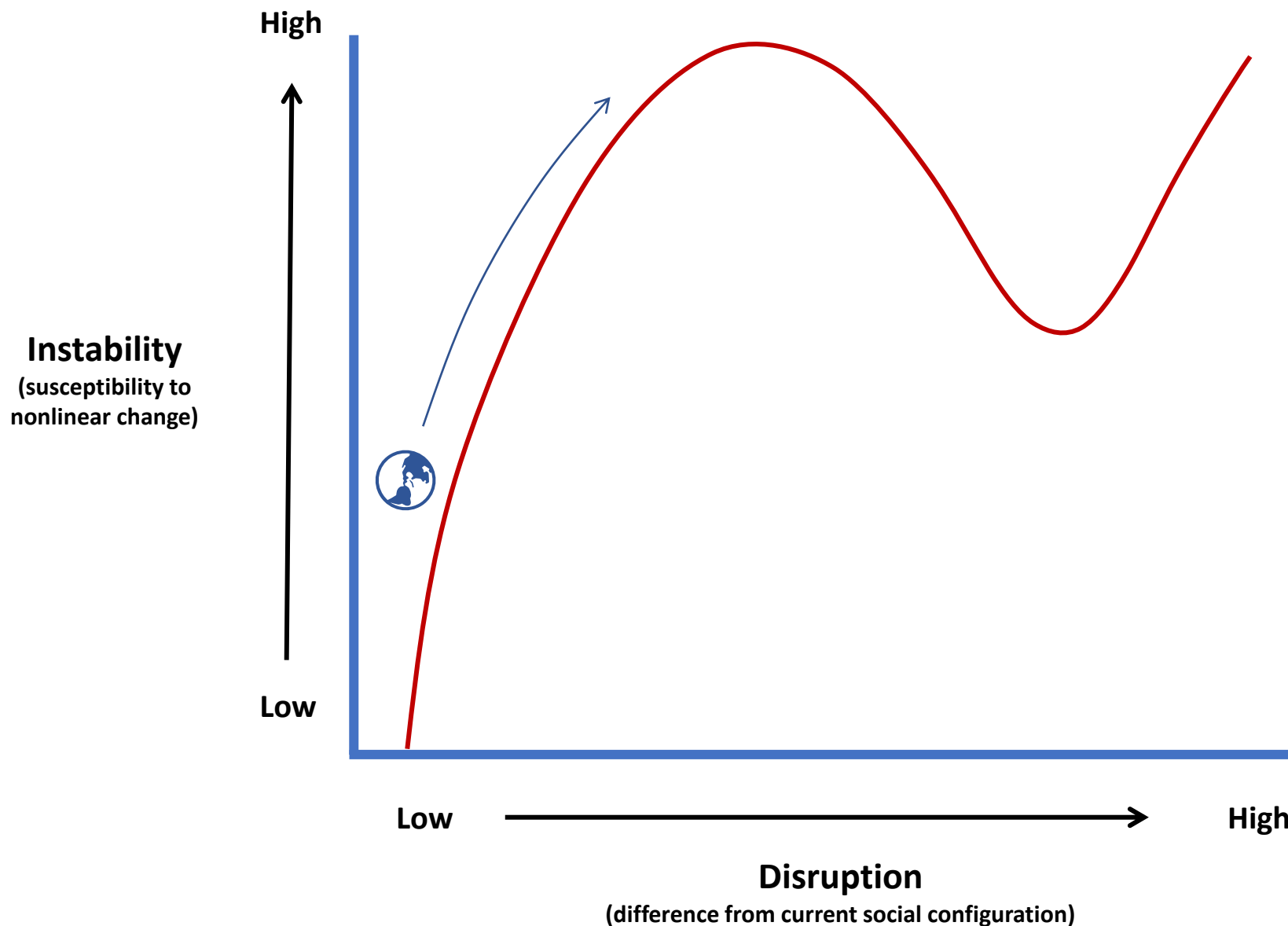
*The curve is an example of what complexity scientists call a “stability landscape.”*

*Complexity scientists use stability landscapes to understand how complex systems like an economy or Earth’s climate move between stable states, or “equilibria.”*

**Instability**  
(susceptibility to  
nonlinear change)

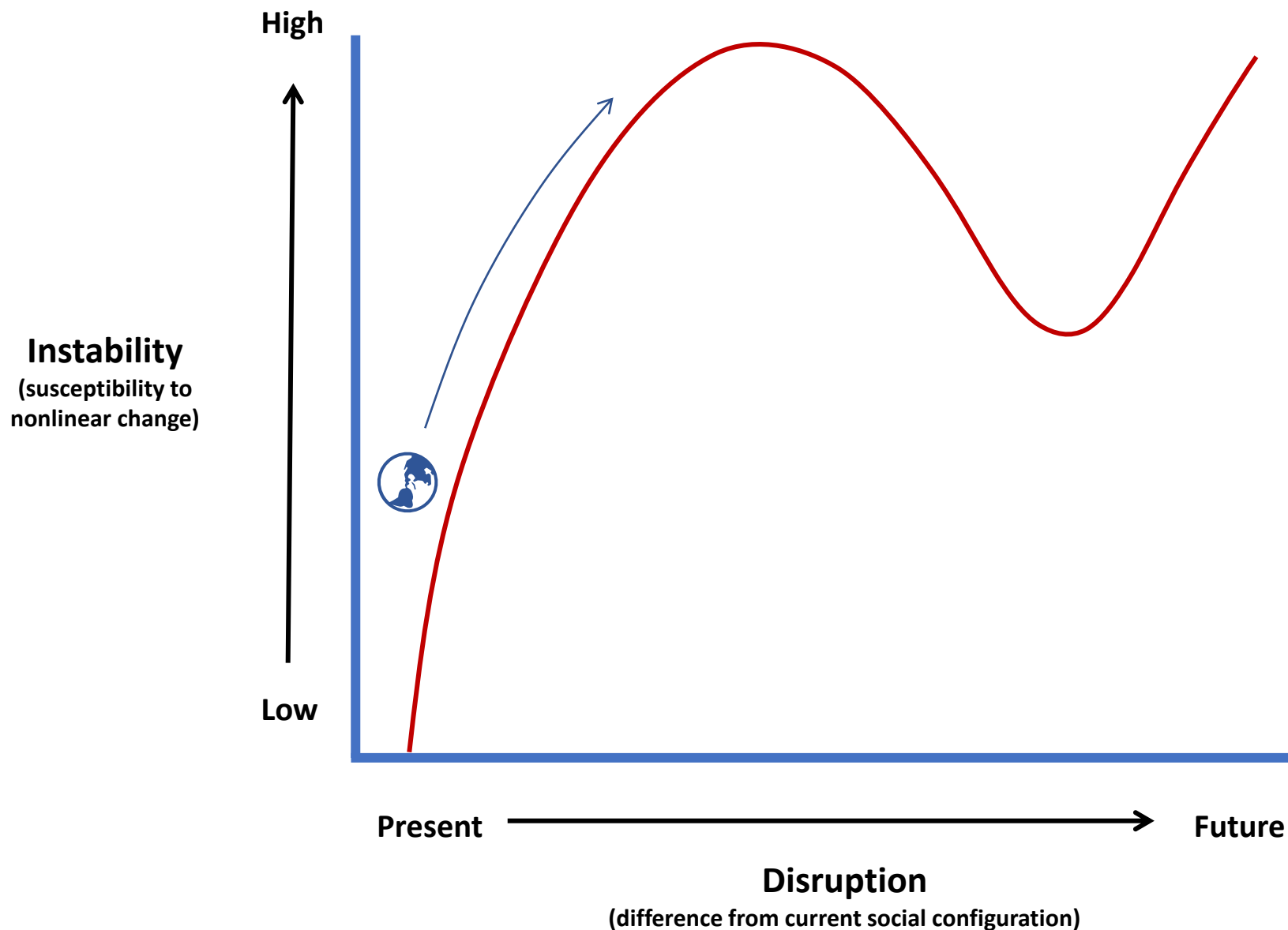


*A system's overall state is  
represented by a ball on the  
landscape. The ball rolls  
towards a low point, or  
"basin of attraction," where  
it's more stable.*



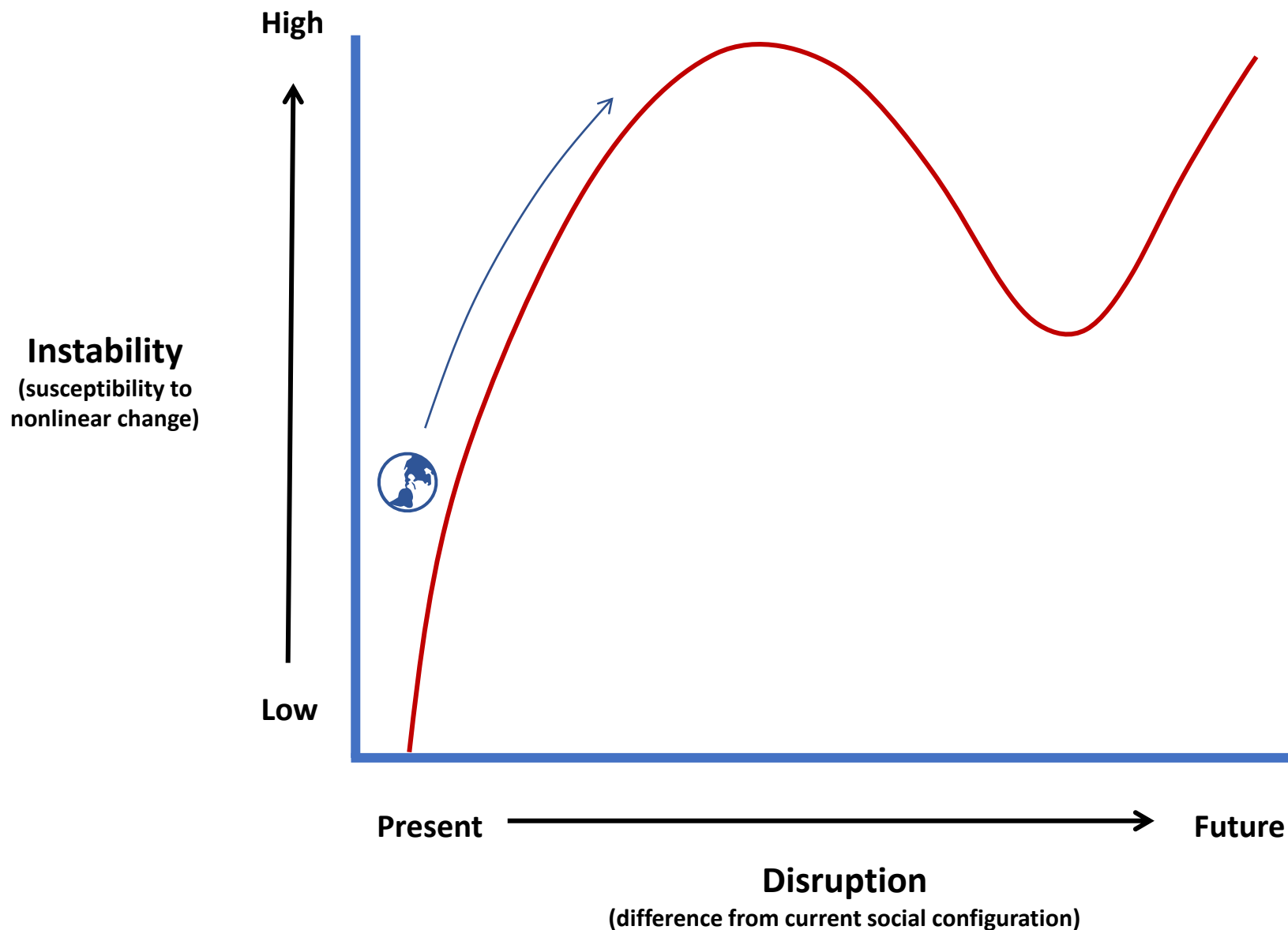
*Our societies are currently in a basin on the left side. But multiple crises, like pandemics, war, economic crisis, and extreme climate events, are disrupting them and propelling them up the basin's side.*



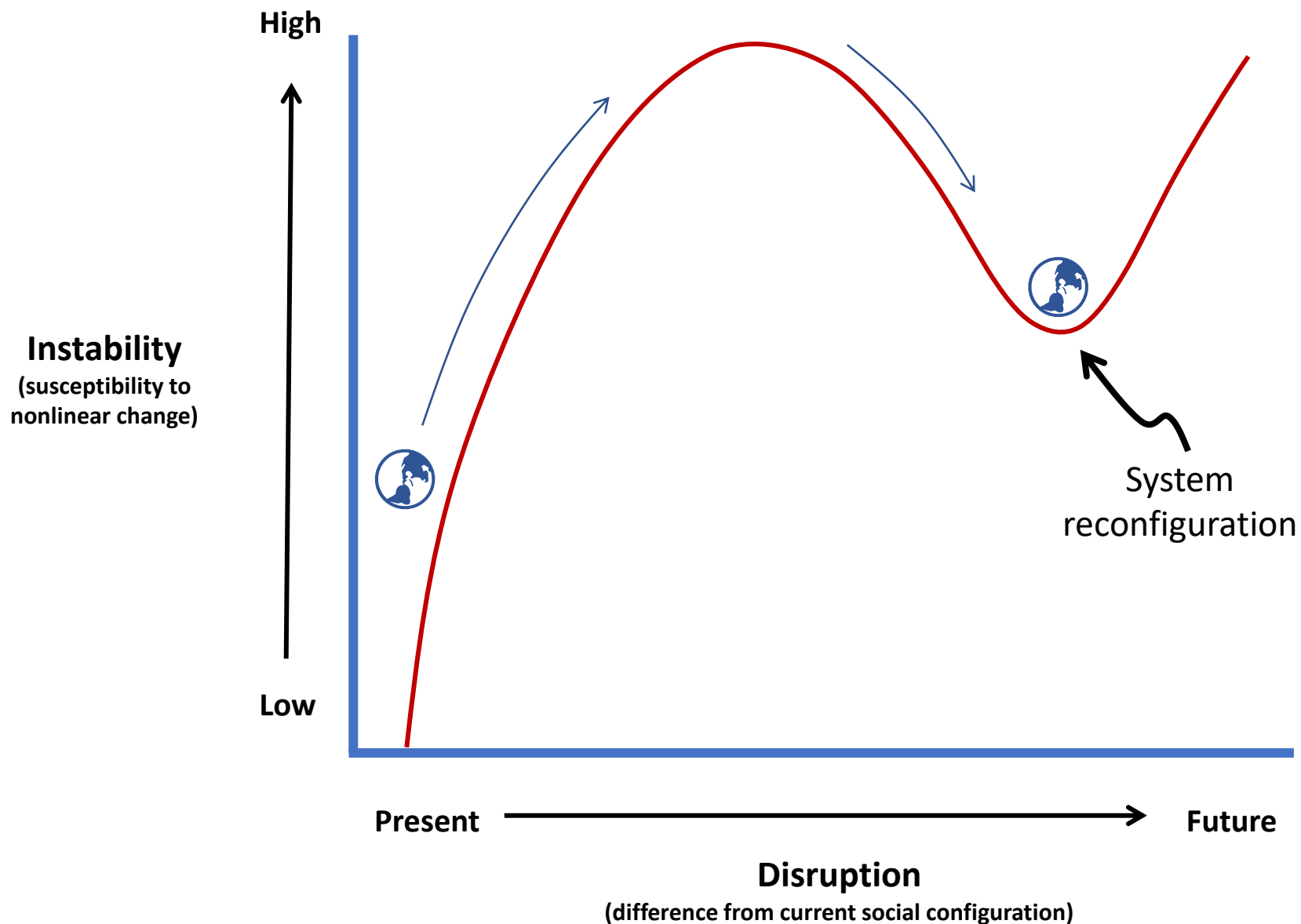


*And because we aren't effectively intervening to reduce the stresses driving these crises—that is, because we aren't “getting to enough”—they're becoming steadily more severe.*

*So the degree of “Disruption” our societies are experiencing is rising with the passage of time from the present into the future.*

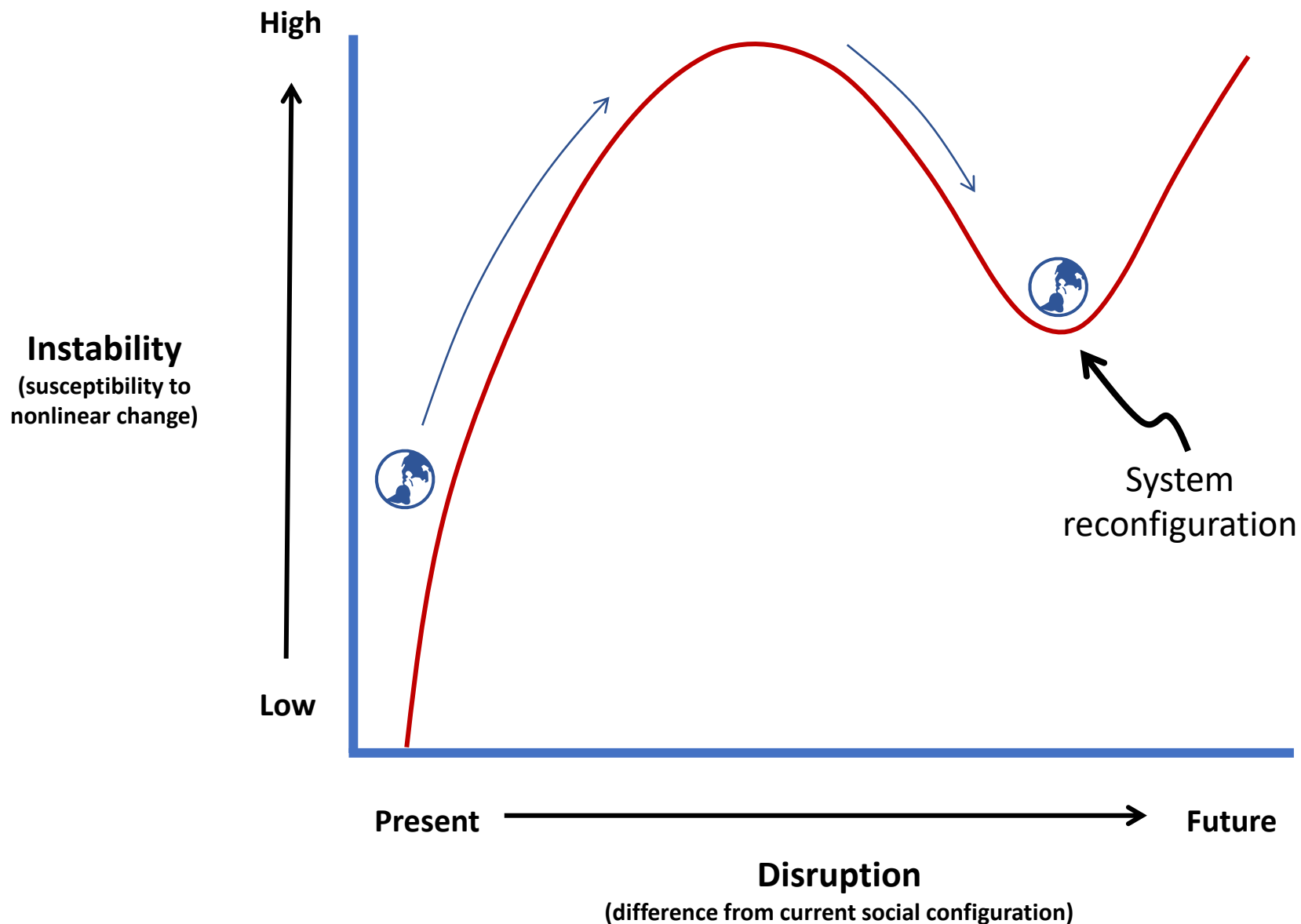


*The Institute's "Global Polycrisis" project is working to identify the factors driving our societies out of their current basin of attraction, especially those factors contributing to the synchronization of crises across global systems.*

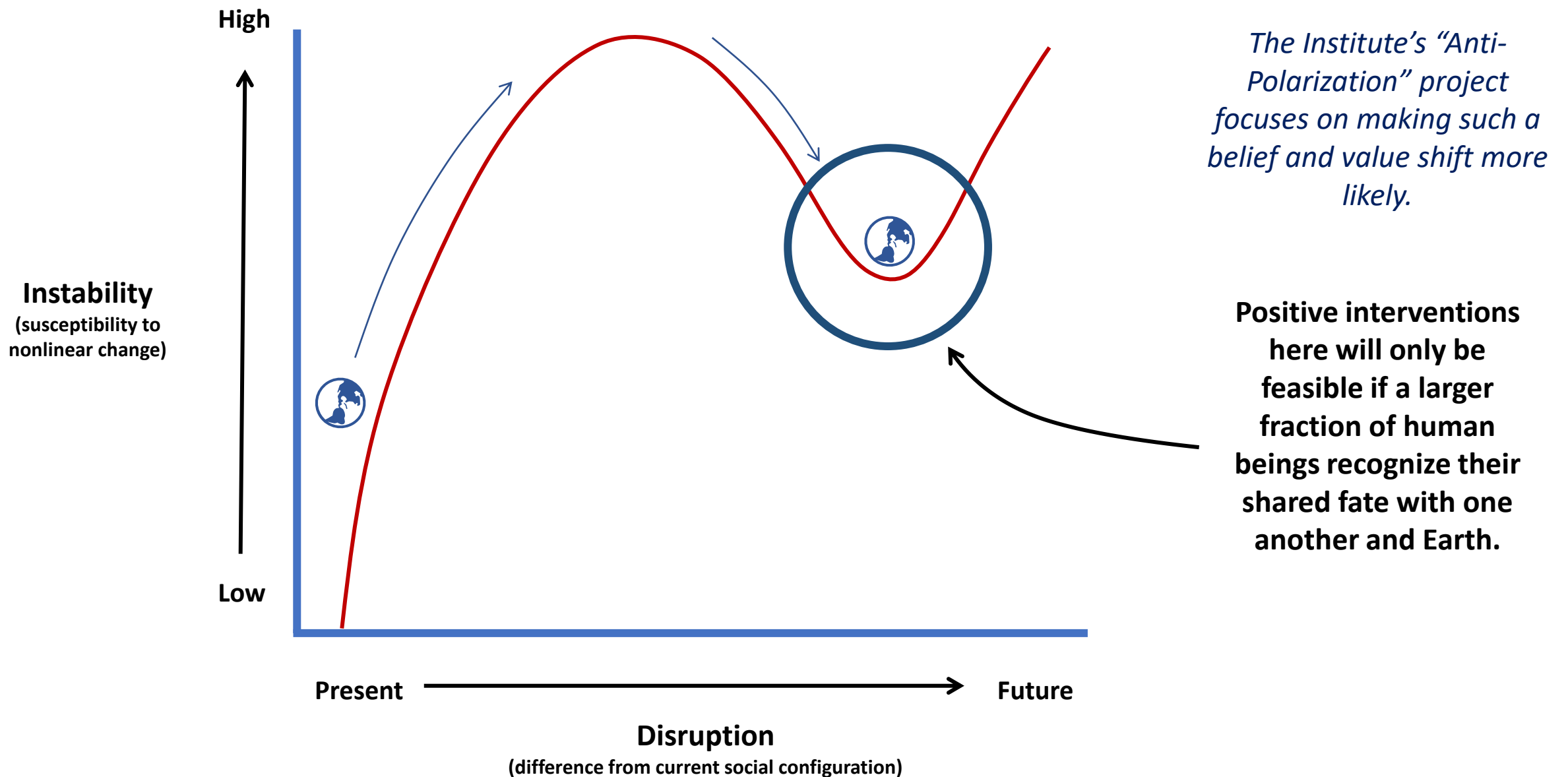


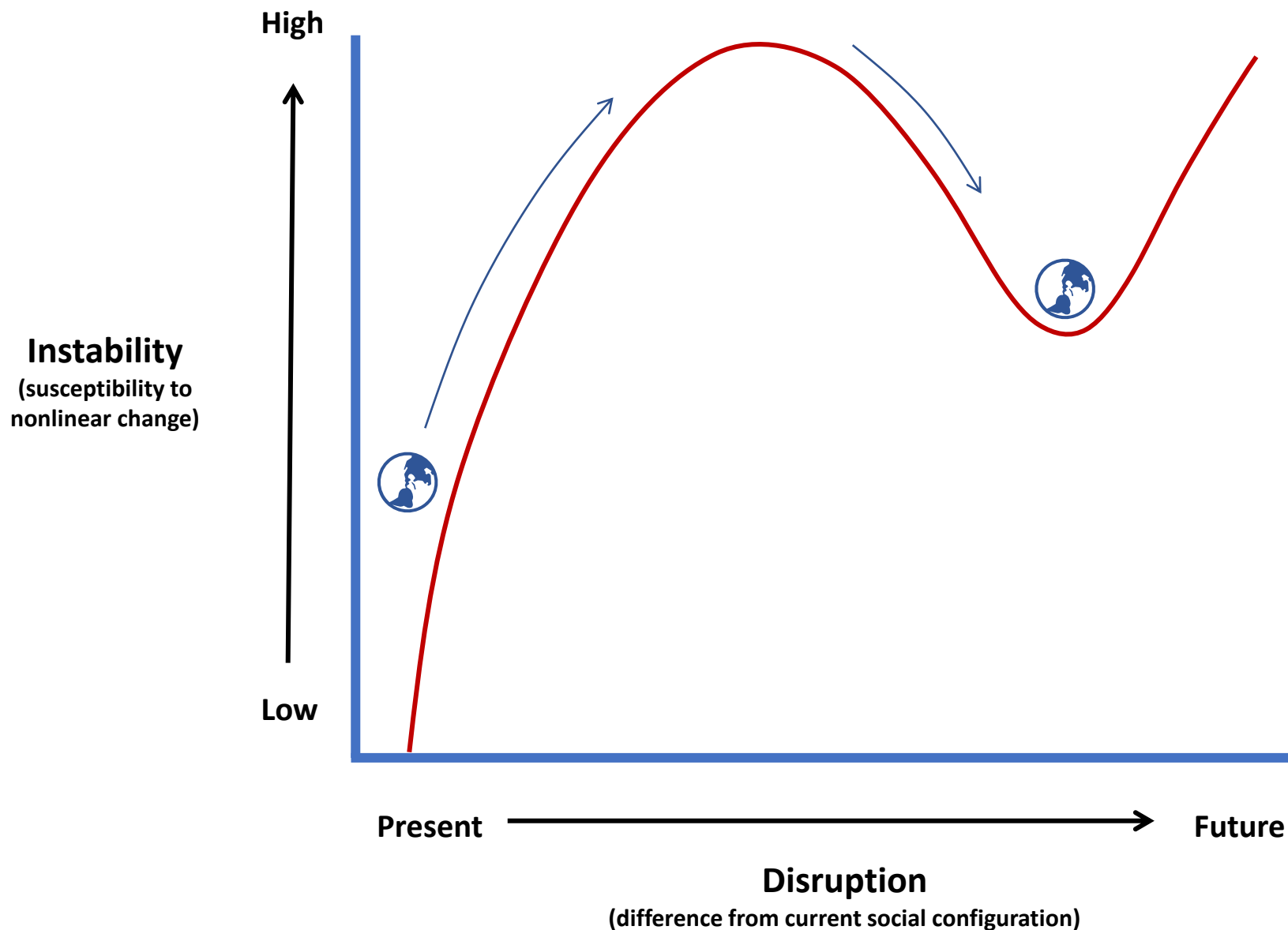
*Beyond a certain level of disruption, our societies' worldviews, institutions, and technologies will "flip" to a new stable state, a new basin of attraction. (The zone at the top of the hump represents a period of extreme instability between the two states.)*

*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 crises, 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.*

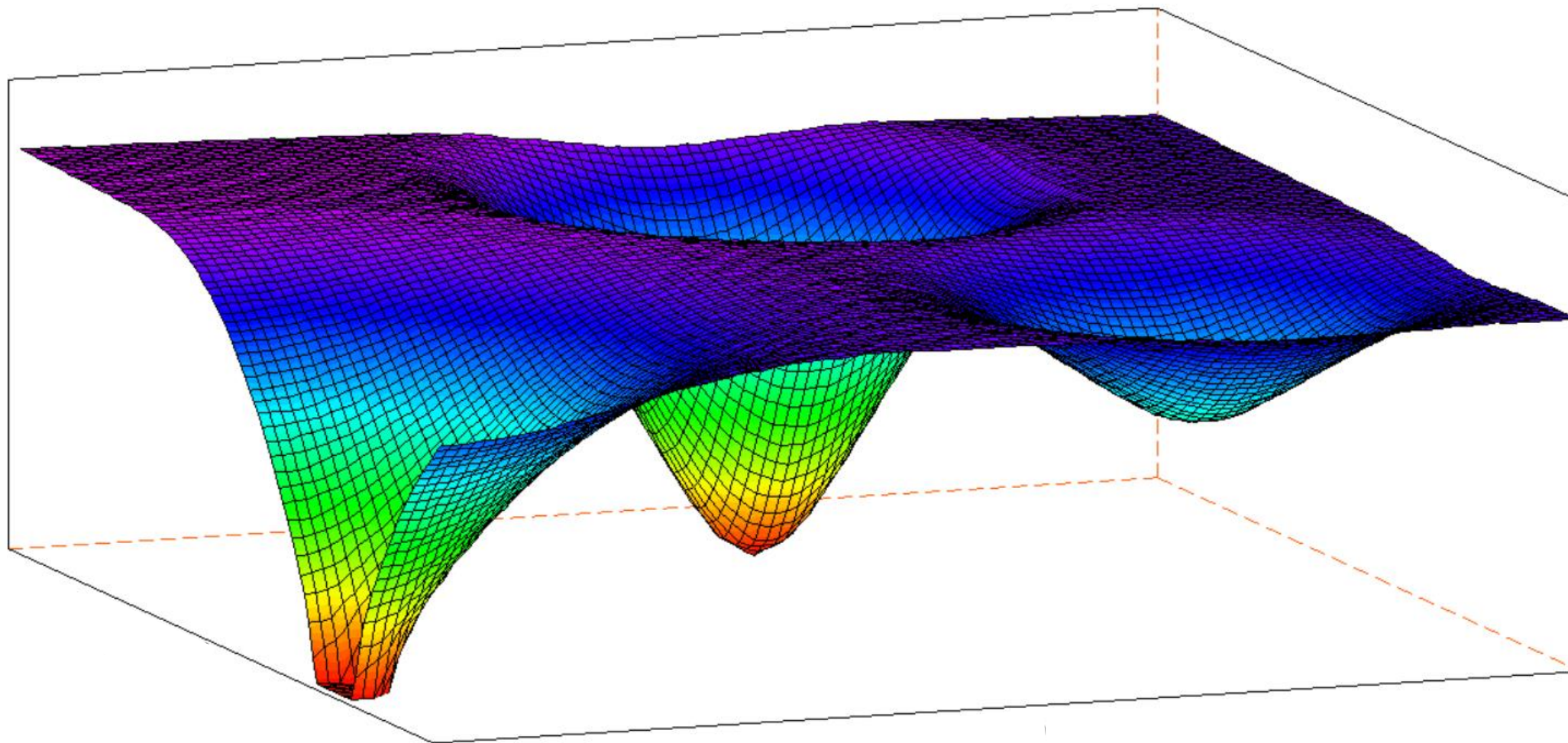




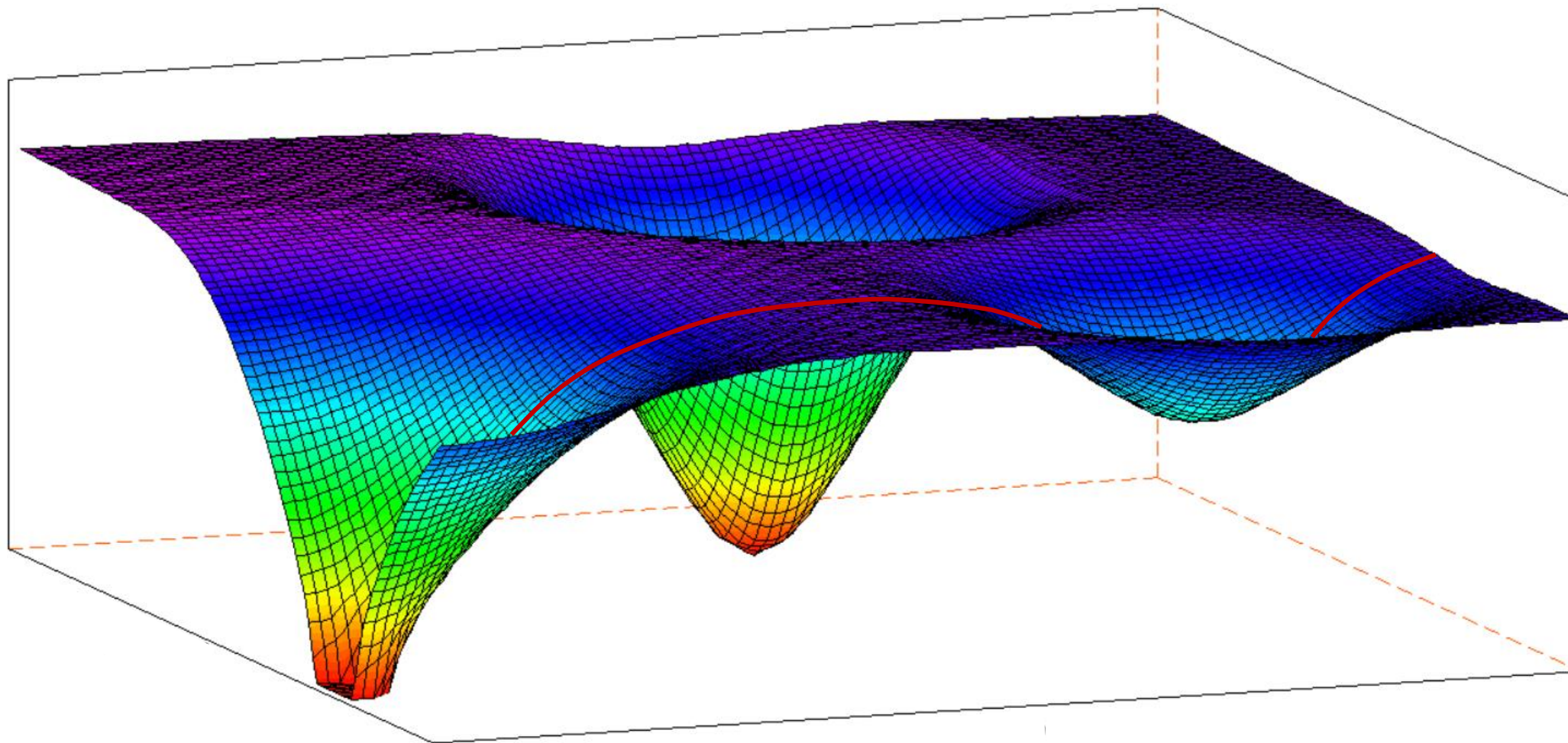
*But there's still more to this story.*

*This 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.*



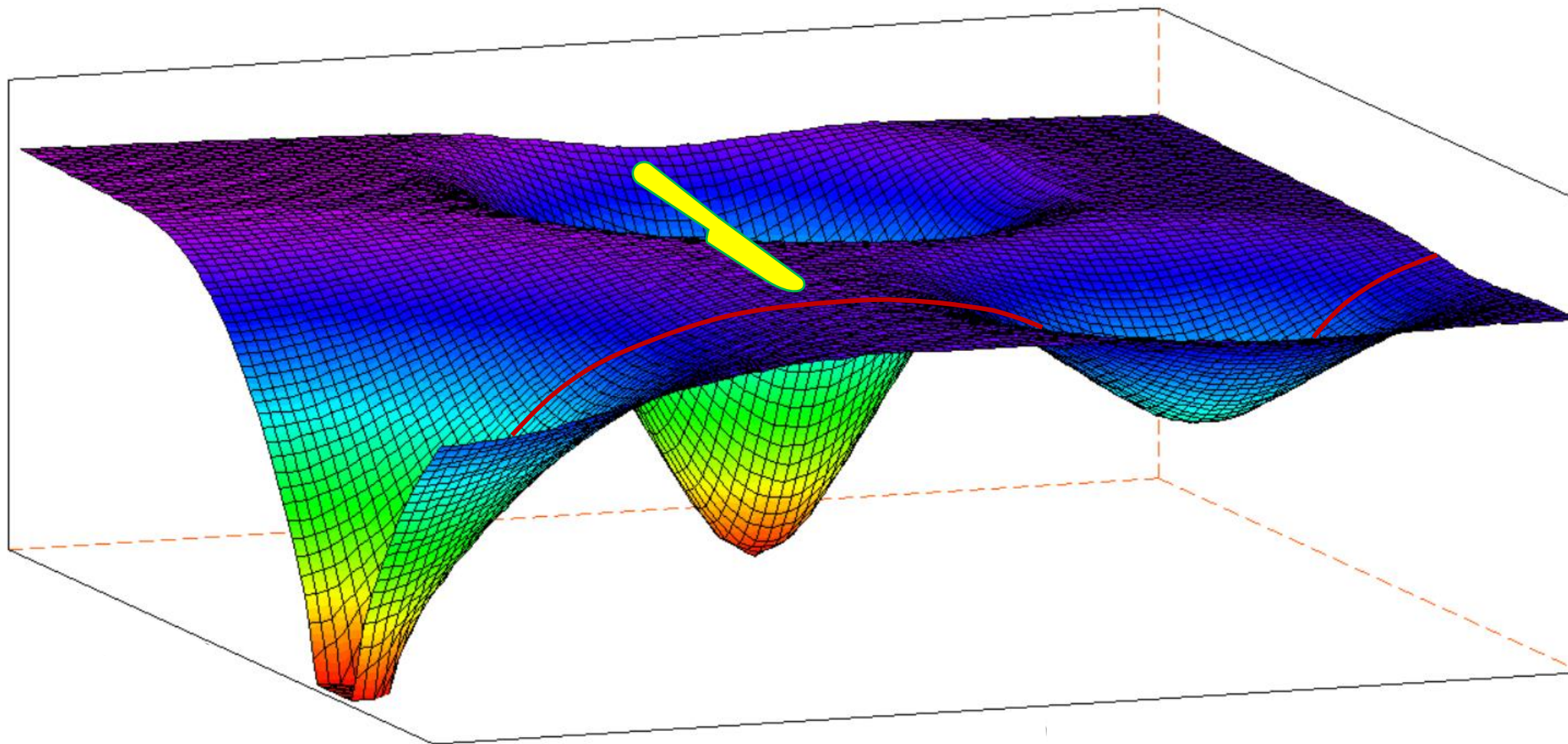


*It looks  
something like  
this.*

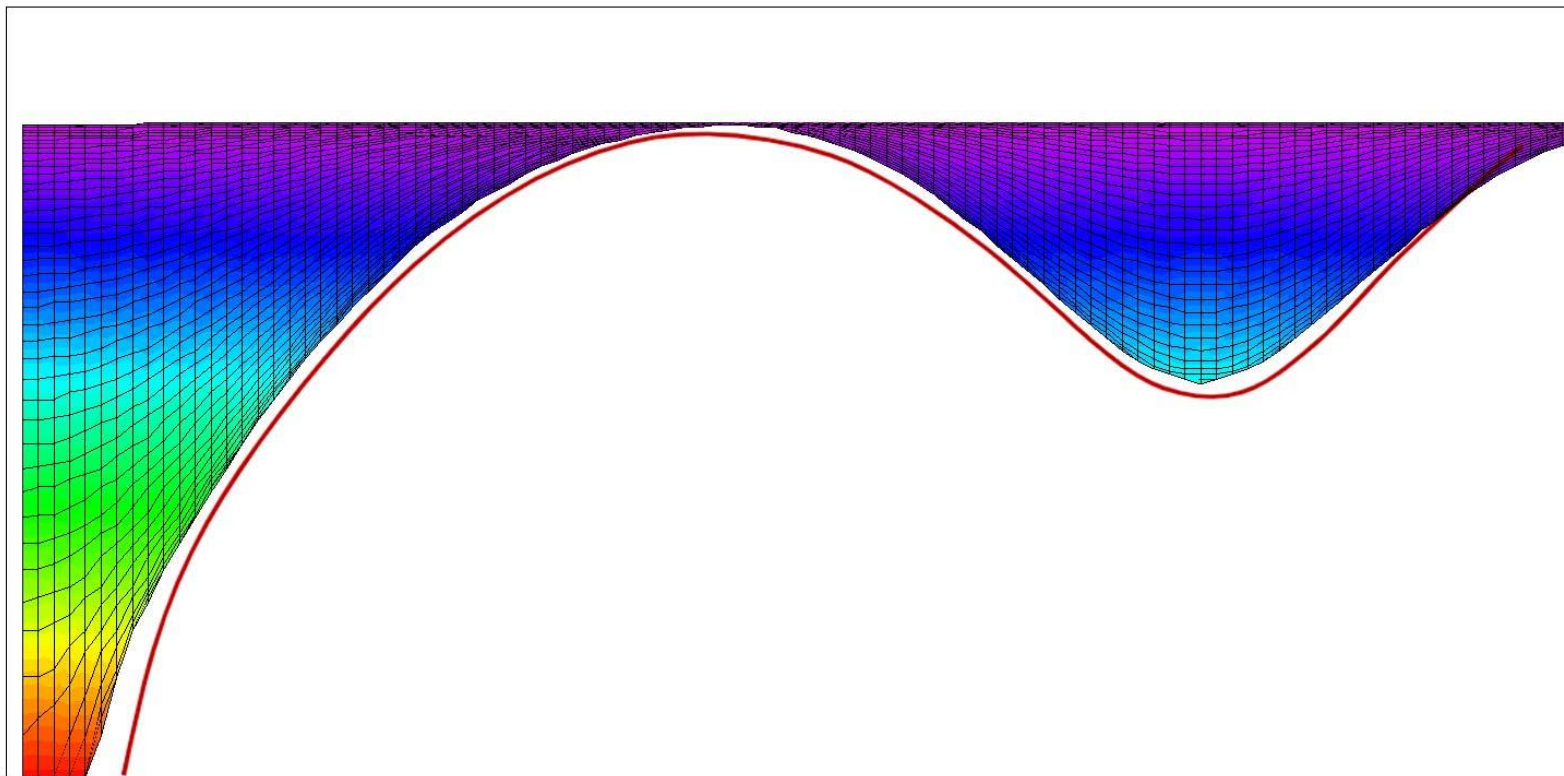


*The previous curve is shown superimposed on the landscape. It runs left to right through the lowest points of the two front basins.*

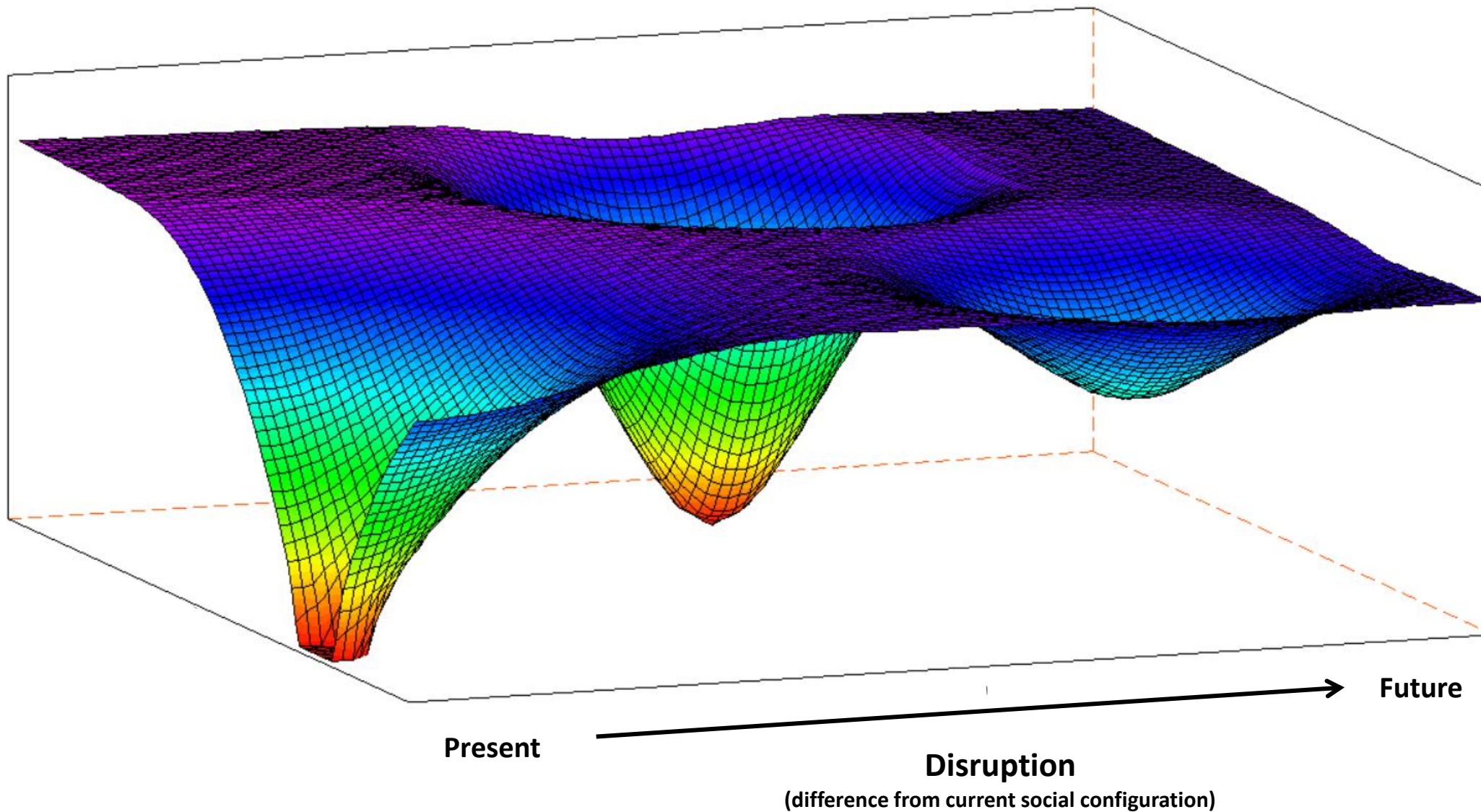




*Imagine a knife slicing through the landscape along the red line. The front edge of the landscape would then have the same shape as the curve.*

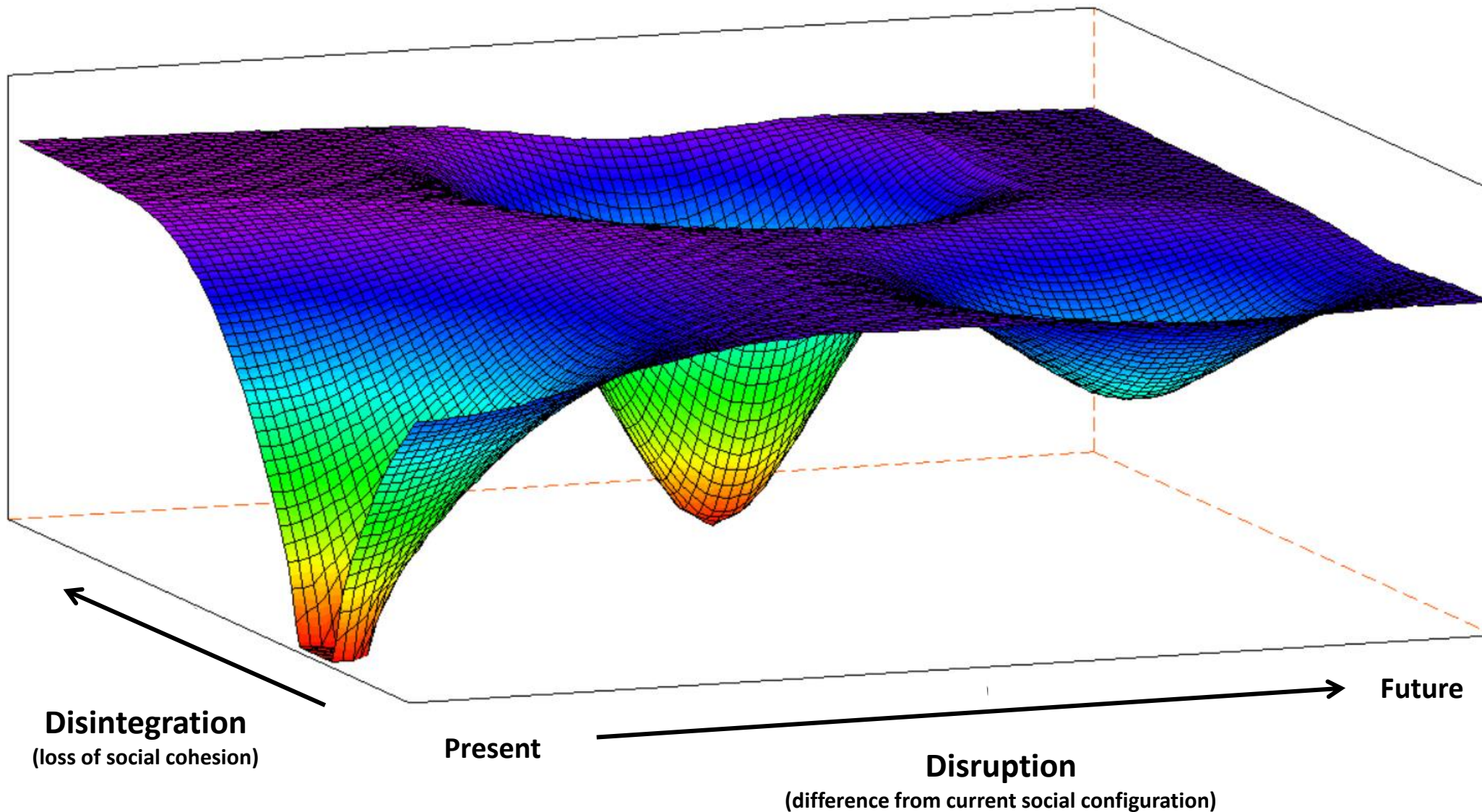


*As we see  
here.*



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

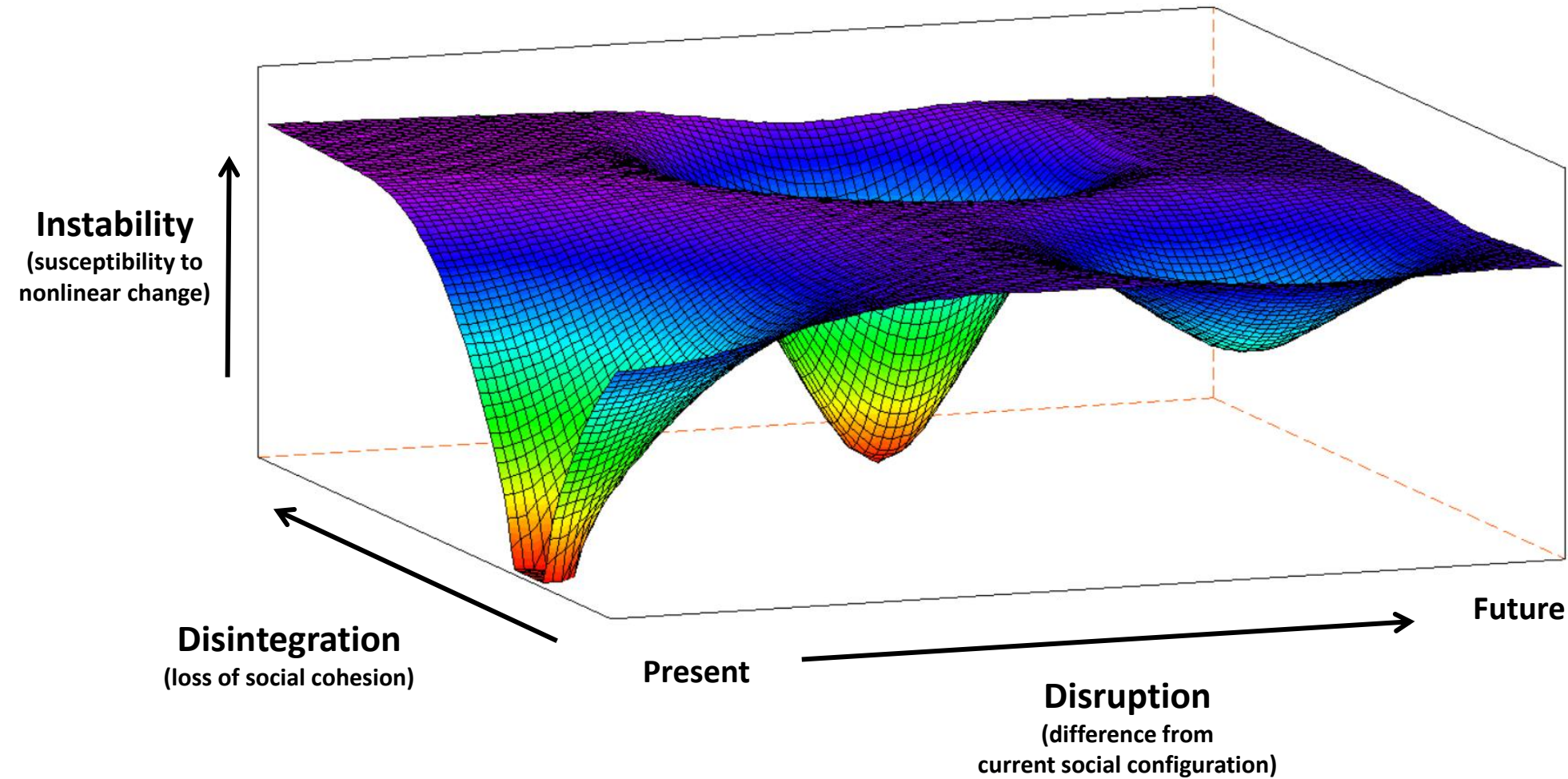


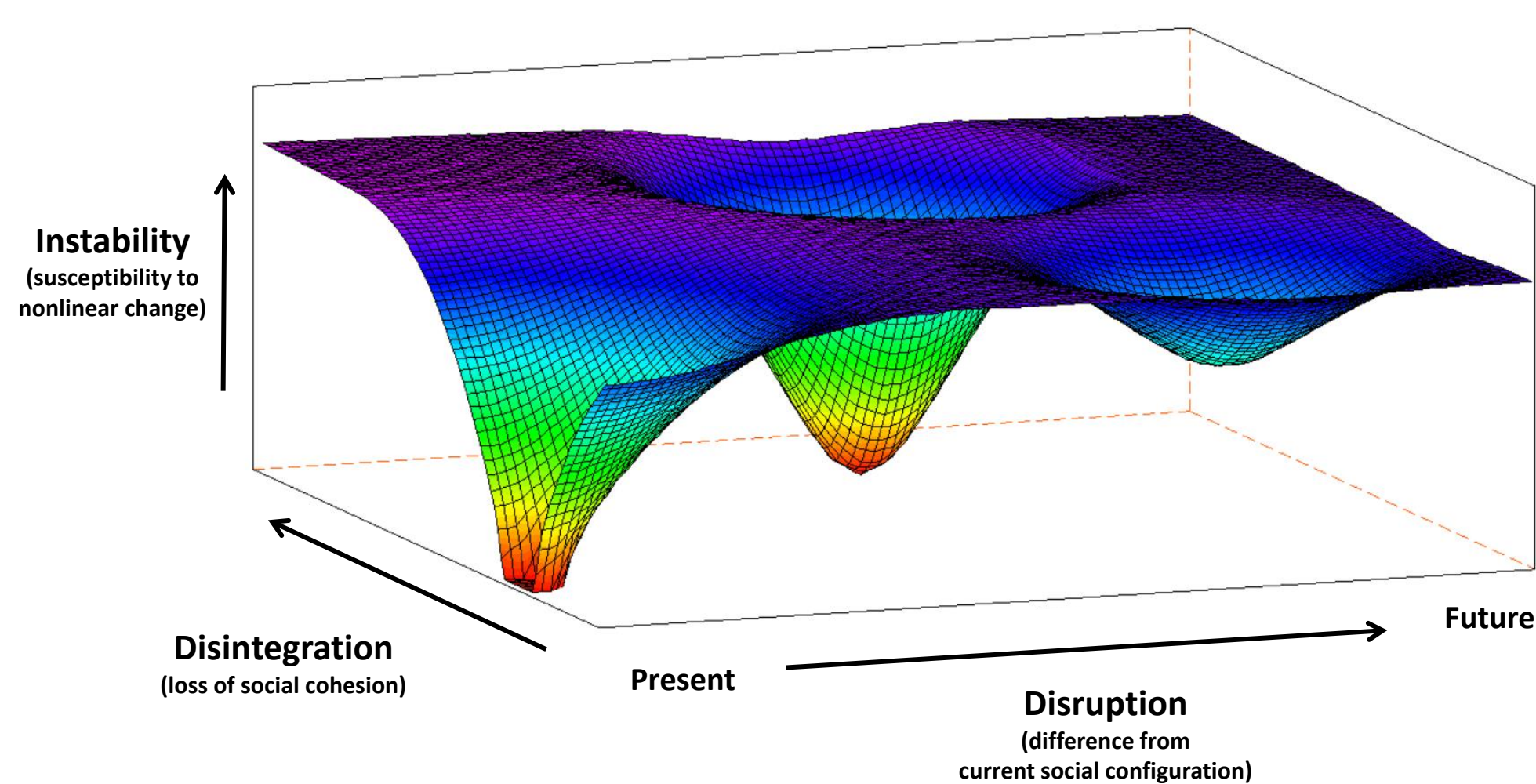


*The dimension along the left side is new. It represents “Disintegration,” or decreasing social cohesion, including loss of interpersonal and intergroup trust, loss of normative consensus across groups, institutional breakdown, and increasing interpersonal and intergroup violence.*

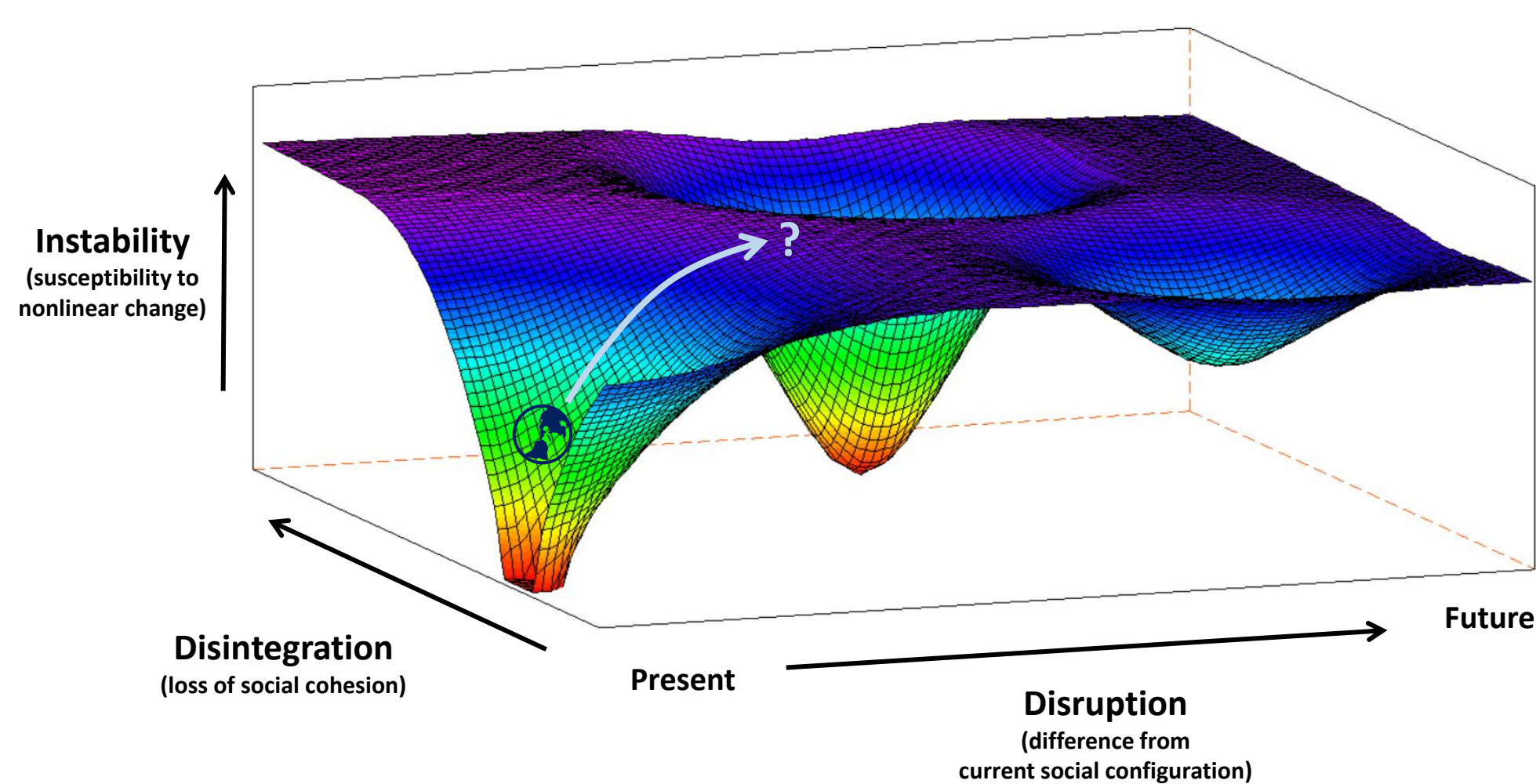


*The vertical dimension is again "Instability."*



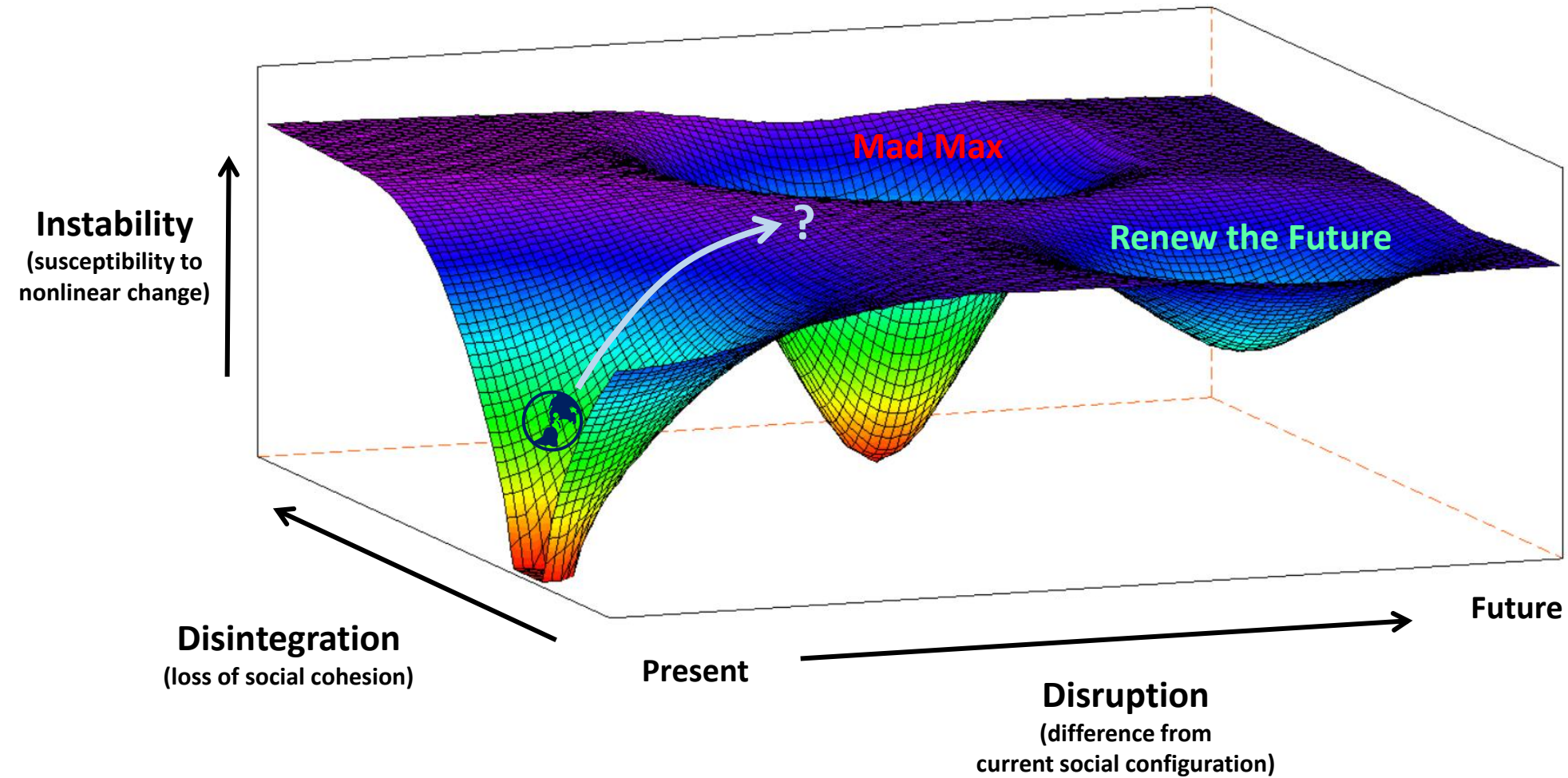


*Disruption, disintegration, and instability are three causally distinct variables. So it's quite possible to have a situation of stable disintegration, as represented by the larger basin of attraction at the back.*

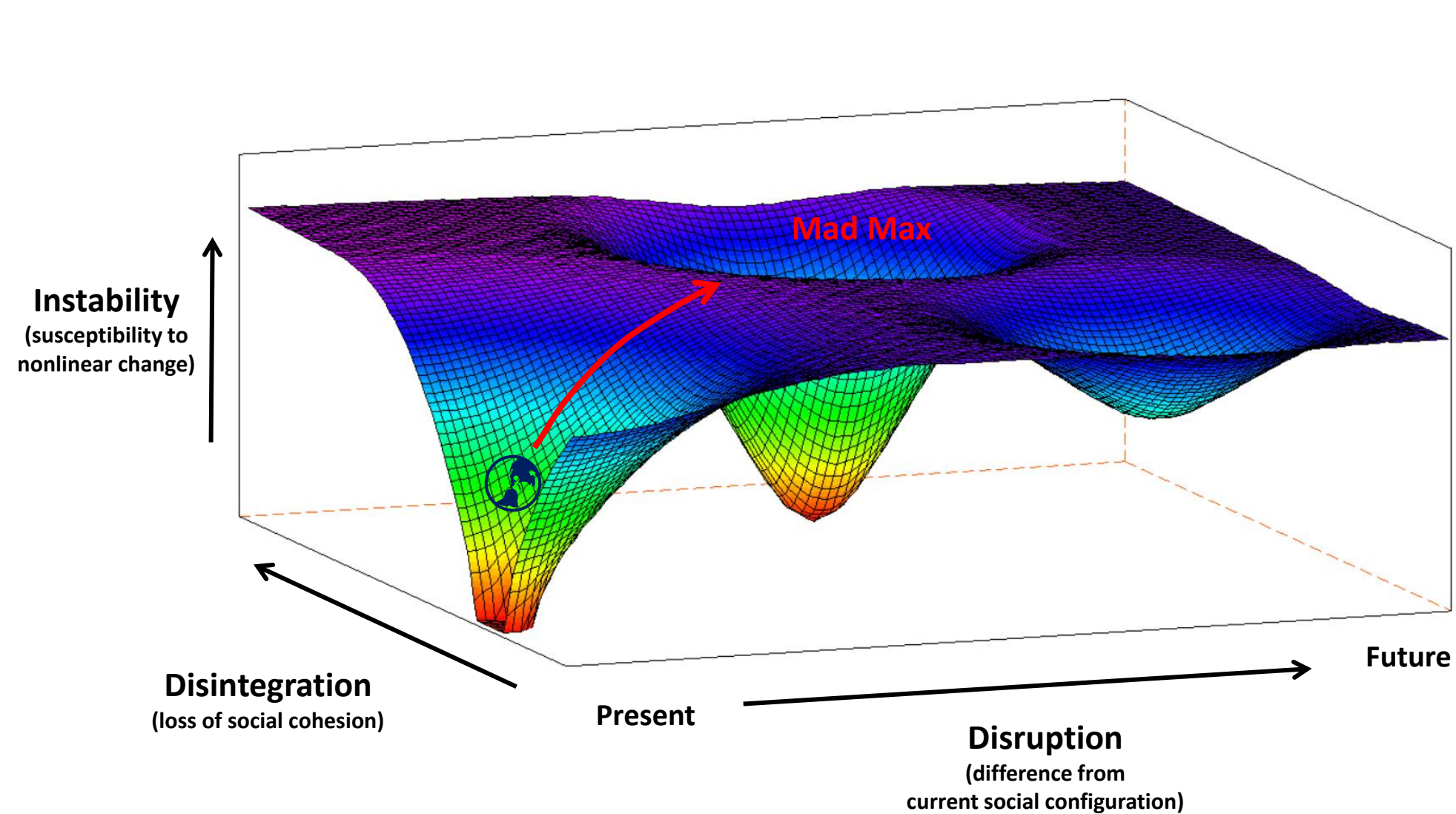


*Humanity is currently in the basin at the front lower left, but stresses and shocks of various kinds (and a long-term shallowing of the basin) mean we're being almost certain to be knocked out of this stability zone in the next decades.*





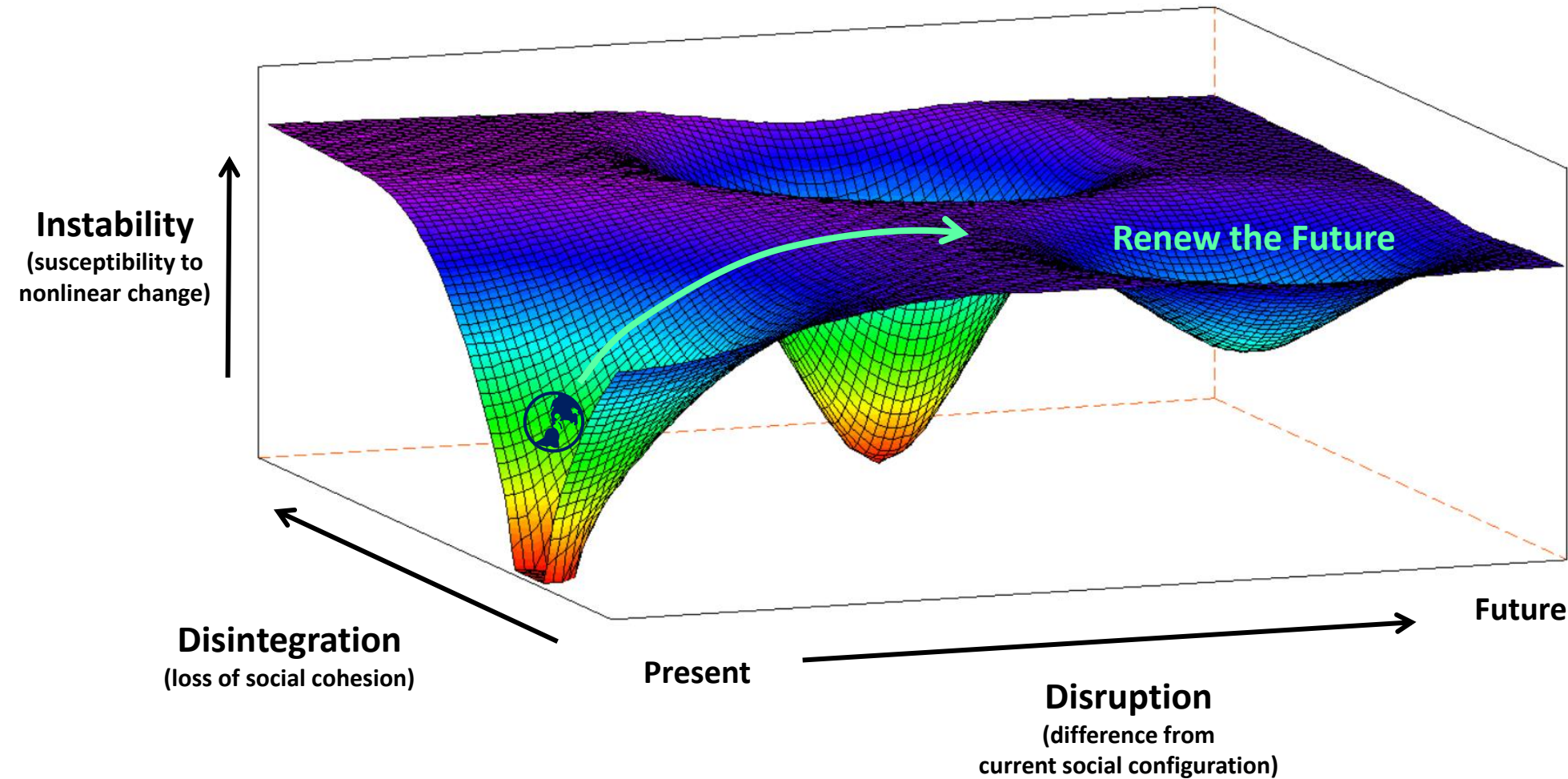
*Our two alternative futures are the “Mad Max” and “Renew the Future” basins, as described in chapter 20 of Commanding Hope.*



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

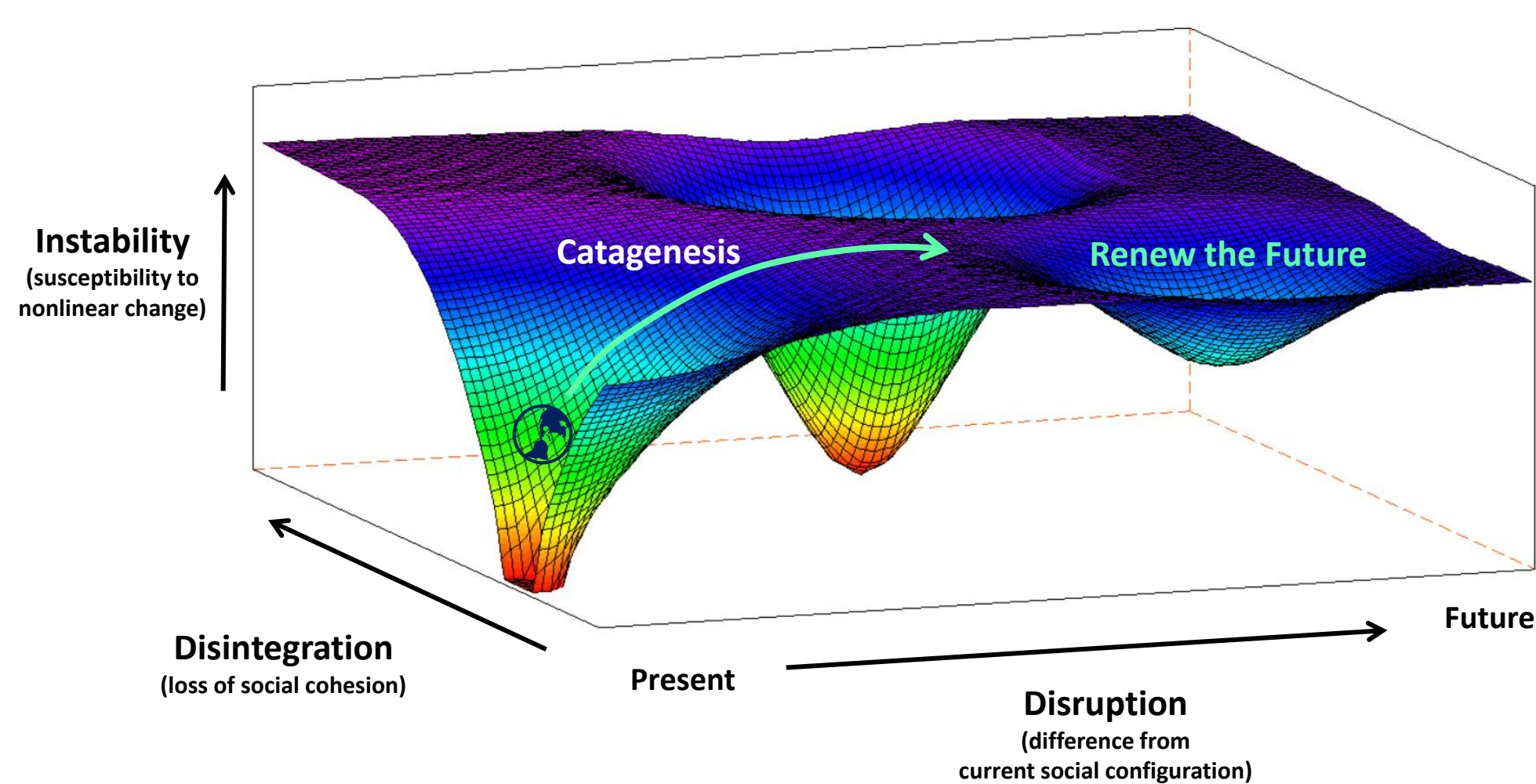
*This basin is broad and deep. It represents stable disintegration. If humanity falls into Mad Max, that's likely where we're going to stay.*

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



*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). Also, since it's less stable, it's more demanding. We'll have to work hard to stay there.*





*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.