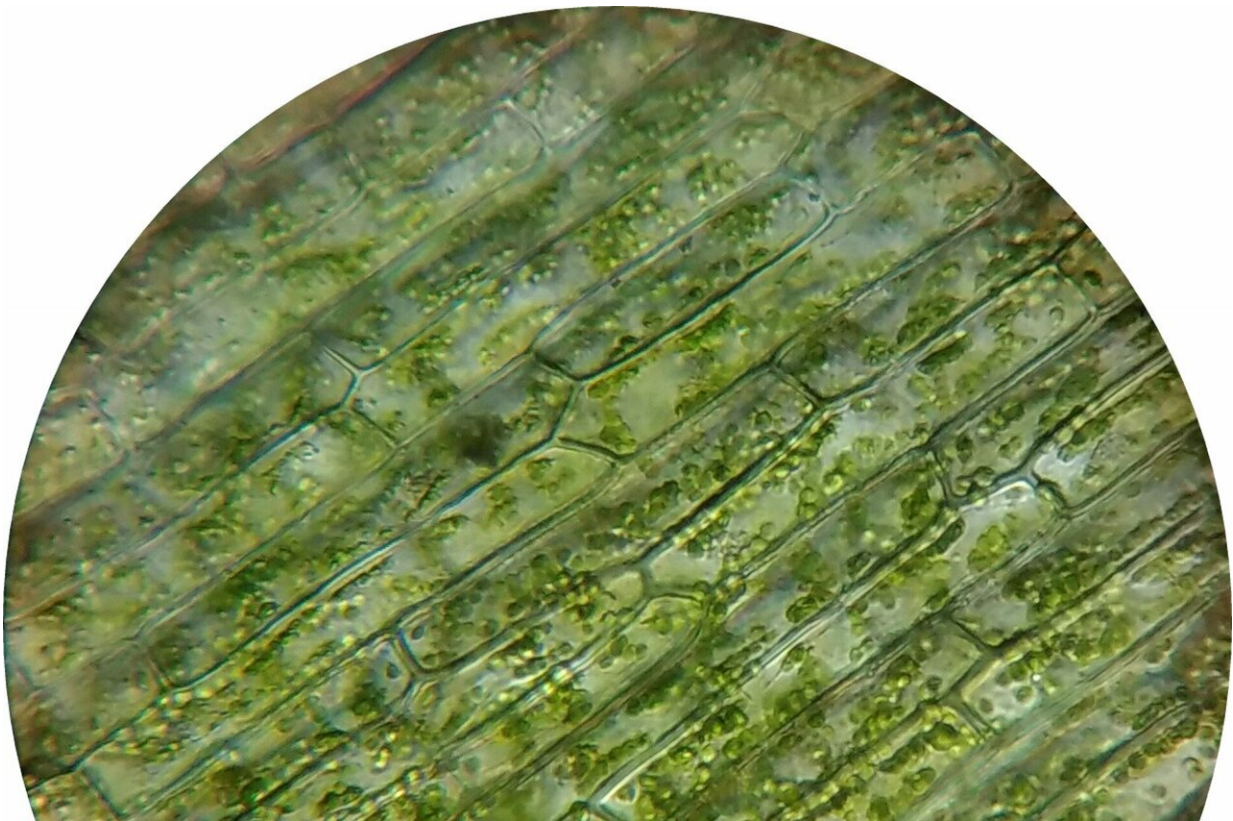


# Political science meets physical science: The shared concept of stability

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In a Perspective, a biophysical chemist, Kenneth J. Breslauer, and his brother, a political scientist, George W. Breslauer, explore the parallelisms between the concept of stability as it is used in their

respective fields. The Perspective is [published](#) in the journal *PNAS Nexus*.

The workings of a cell or molecule are generally understood to be reducible to physics, but social and political events are thought to be structured by human agency and a generous helping of chance. However, both [molecular systems](#) and socio-political organizations can be said to exhibit stability, instability, or so-called "metastability," a state of precarious and kinetic stability.

For example, a chemical system can be metastable when molecules are kinetically trapped in a high energy state until outside influences perturb their equilibrium, while isolated social states such as East Germany can persist in a metastable state for decades until their boundaries are breached by outside influences.

Ultimately, the authors propose that [social systems](#) can be conceptualized using the language of thermodynamics, in ways that reflect a greater than traditionally assumed continuity between nature and society.

**More information:** George W Breslauer et al, Political science meets physical science: The shared concept of stability, *PNAS Nexus* (2023). [DOI: 10.1093/pnasnexus/pgad401](https://doi.org/10.1093/pnasnexus/pgad401)

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