



# SFI TRANSMISSION

## COMPLEXITY SCIENCE FOR COVID-19

**STRATEGIC INSIGHT:** It is important to keep in mind that as agents we maintain bottom-up control, even if we lack decisive power.

**FROM:** Anthony Eagan, Santa Fe Institute

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One of the central points of contention during the framing and ratification of the US Constitution involved the question of federalism, or the division of power between the state and central governments. The question was novel in the history of nation-building, in part because of the size and diversity of the American geographical and social landscape. In many ways, the richness of the debate demonstrated a prescient grasp of our germinal nation as a complex system, with questions of agency, robustness, decentralization versus centralization, economy and trade, public safety, and national versus subnational networks at its heart. This conflict can be understood as one between the urge for national power and the counter-urge for local control.

The Federalists advocated a strong national government, the primary role of which would entail overseeing the state and local governments across our large domain. This can be likened to a top-down approach to robustness. The Anti-Federalists advocated against consolidated central power and for greater local and state sovereignty: the bottom-up approach. The debate took for granted that any central authority was potentially both beneficial and detrimental. The primary benefit is the ability to safeguard liberty and protect the populace, whereas the primary detriment is the ability to threaten liberty in times when it would otherwise be unthreatened by external or internal dangers.

Fearing that ratification was in jeopardy, Alexander Hamilton, James Madison, and John Jay wrote a series of 85 letters under the title of *The Federalist*, in which they attempted to explain how the Constitution amounted to, among other things, a compromise between local and centralized needs. In the 39th letter, Madison wrote the following:

“But if the government be national with regard to the operation of its powers, it changes its aspect again in relation to the extent of its powers. The idea of a national government involves in it not only an authority over the individual citizens, but an indefinite supremacy over all persons and things, so far as they

are the objects of a lawful government. . . . In this relation, then, the proposed government cannot be deemed a national one; since its jurisdiction extends to certain enumerated objects only, and leaves to the several states a residuary and inviolable sovereignty over all other subjects.”

National action has the obvious advantage of a quicker and more unified and consistent response; local action has the advantage of specialized adaptation to the needs of the community as well as the flexibility of innovative thinking appropriate for the milieu in question. We are seeing today how important these questions and tensions remain, as the American people have sought more rapid, more consolidated, and more direct responses from the federal government, particularly the executive branch. Yet simultaneously the same population has shown fear that unprecedented measures enacted in catastrophic times will inevitably amount to greater authoritarian power in Washington, not only in the near future, but also down the road.

We are currently trying to juggle different considerations: the health of our populace, the needs of our economy, and our political and social future. The obvious fear is that prioritization of one may cause incalculable and unforeseeable damage to the others. We worry that, for instance, a centralized and authoritative response may sacrifice the future for the present, leading to an economically desperate population which is hungry, out of work, resentful, radicalized, and ready to cede power to increasingly authoritarian political figures. Simultaneously, we know we cannot sacrifice the present for the future, since the death toll is rising, hospitals are overwhelmed, the virus is spreading, and our medical-care professionals and other essential workers are risking their lives on a daily basis.

As we wait and observe the ongoing governmental responses at the municipal, state, and national levels, it is important to keep in mind that as agents we maintain bottom-up control, even if we lack decisive power. Whether one is a Federalist or an Anti-Federalist, as the COVID-19 pandemic continues, it remains the case that the most local response possible falls upon the individual agents constituting the population. The more uniformly and selflessly we act, the more control we have. In this way, the robustness of our nation may prove to be bottom-up. Health experts tell us to wash our hands and stay at home. We should do these things literally, but not figuratively. It is the best way to maintain control.

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