

# The Central Role Of Collaboration And Trust In Human Societies



*Carole Crumley - Photo:  
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*02-08-2025 ~ The concept of heterarchy has joined a developing paradigm shift in the social sciences.*

How do we organize elements in a system? One way is through the lens of hierarchy, which presupposes levels, a top-down ranking of elements. Another is homoarchy, which permits one (and only one) ordering. Both terms, while useful to characterize a stable formation, do not accommodate the dynamics of complex systems. Heterarchy, by contrast, embraces the diversity of relationships among elements and encourages the study of systemic change over time.

The definition of heterarchy varies only slightly depending on the scientific discipline and application. For mathematician and computer scientist [Douglas Hofstadter](#),<sup>1</sup> it is a system in which there is no “[highest level](#).” For sociologist [David Stark](#),<sup>2</sup> it’s “an emergent organizational form with distinctive network properties... and multiple organizing principles.” Social theorist [Kyriakos Kontopoulos](#)<sup>3</sup> defines it as “a partially ordered level structure implicating a rampant interactional complexity.” In anthropology and archaeology, a general-purpose definition suits a variety of contexts: the relation of elements to one another when they are unranked, or when they possess the potential for being ranked in different ways, depending on [systemic requirements](#).<sup>4</sup> These definitions

offer an arena for examining diversity and change in systems, organizations, and structures.

One of the appealing qualities of heterarchy is its flexibility, which is why it has become [popular](#) in biological, physical, and social sciences.<sup>5</sup> There is now clear evidence that economic, political, and social power take many governmental forms that are never entirely hierarchical, even in autocratic states. As shown in [Historical Ecologies, Heterarchies, and Transtemporal Landscapes](#),<sup>6</sup> stable collaborative governance has a long history, both hierarchical and heterarchical relations are complex, and together they enable the analysis of shifting forms of power over time.

### *Defining Complexity*

The real challenge is to define “complexity” rather than heterarchy. Social scientists have long uncritically embraced models that define social complexity in terms of *levels* (a spatial position on a vertical axis) of organization. In the [biophysical sciences](#), *complex systems* (such as the brain and the immune system) are interconnected; instead of being characterized by ranks or levels, they feature *nodes, links, and networks*.

Research shows that communities can organize without a central authority, as [noted](#) by political economist [Elinor Ostrom](#) <sup>7</sup> and her colleagues. They identify “[design principles](#)” of stable common-pool resource management that include local knowledge, clear rules, effective communication, monitoring, sanctions, paths for conflict resolution, internal trust, and the recognition of self-determination by other political entities.

### *A Paradigm Shift*

In archaeology, the old paradigm is giving way, in part due to archaeologists’ realization that many of them have spent their careers digging sites full of evidence for collaborative management. A more balanced paradigm has begun to take its place, one that sees many sources of power and new implications for governance. This paradigm shift started several decades ago but found greater acceptance in the early 21st century. It is important that this dynamic moment and its implications be fully examined. In *The Dawn of Everything: A New History of Humanity*, anthropologist David Graeber and archaeologist David Wengrow <sup>8</sup> began [investigating](#) the past for overlooked evidence of this collaborative form of governance.

Philosopher [Thomas Kuhn's \*The Structure of Scientific Revolutions\*](#) <sup>9</sup> defines *paradigms* as universally recognized scientific frameworks that, for a time, provide model problems and solutions to a community of practitioners. Kuhn's book introduced into common usage the term *paradigm shift*, meaning a fundamental change in a widely used model or perception.

Kuhn has offered generations of young scholars the thrilling prospect that their work could have the potential to revolutionize their chosen field by sparking a *scientific revolution*, which he describes as:

"... when... the profession [adopts] a new set of commitments, a new basis for the practice of science. The extraordinary episodes in which that shift of professional commitments occurs are the ones known... as *scientific revolutions*. They are the tradition-shattering complements to the tradition-bound activity of normal science."<sup>10</sup>

Kuhn reminds his would-be revolutionaries, though, that there are elements and dimensions of paradigmatic methods and theories, each of which must be retained, modified, or disassembled with due consideration. So we have a responsibility to hold *revolutions*—scientific or otherwise—in abeyance, and take the time to proceed carefully.

Accordingly, the enormous body of work that has focused on hierarchies of power need not be jettisoned. The uncovering of alternate paths to power marks the beginning of a more complete understanding of how societal governance is achieved and what can emerge from the examination across eras of political forms and their fluctuating utility in environmental, social, and other contexts.

The social implications of the new paradigm could reverse understandings that have prevailed for millennia. One example is the global shift in the understanding of sex and gender that began in the 20th century. Despite several early pioneers, the climate for professional female archaeologists was chilly through the 1980s. As women's presence in the field was accepted, new ways of seeing sex and gender in the archaeological record [emerged](#) <sup>11</sup> and evidence was reevaluated. Advances in methods, especially in genomics, have strengthened these new [interpretations](#).<sup>12</sup>

Another example is the—perhaps overstated—role of aggression in human history. The 2021 book [Power From Below in Premodern Societies](#) <sup>13</sup> reports

archaeological findings that question aggression as a central driver of human societies. The 18 authors of the book argue that individual power requires social acquiescence and the recognition of roles. Their findings are that collectively organized centers enjoyed somewhat longer apogees than their autocratic neighbors, which suggests that compliance built on trust makes strong communities.

Shifting power relations over time can be tracked in several ways; indicators in past landscapes—food storage units, enclosures, defensive structures, and the treatment of the dead—offer a more robust explanation for the diverse motivations of monumental construction. The book’s editors T.L. Thurston and Manuel Fernández-Götz question earlier interpretations of certain peoples and eras as bellicose, and demonstrate that new evidence points instead to community-based defense. This offers a new appreciation of the importance of trust in social and political relations, a finding that resonates in today’s political landscape.

### *Future Steps*

Moving forward, it’s important to learn from both ranked and networked systems and recognize diverse forms of organization. By balancing different social, geographical, and temporal factors, we can develop a clearer understanding of human organization and expand our visions of the human future.

### *Notes*

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