



Leadership Takes Aim

David Carl Wilson^{1,2} 

Received: 13 February 2026 / Accepted: 25 February 2026 / Published online: 16 March 2026
© The Author(s), under exclusive licence to Springer Nature Switzerland AG 2026

Abstract

This article responds to Pat Werhane’s “Embedded Leadership and its Discontents.” I summarize her model of “embedded leadership,” which draws on complex adaptive systems theory. She argues that leaders should universally minimize their use of authority, remain flexible, and situate themselves in the “nitty-gritty” of organizational life. I locate her view within a broader family of anti-authoritarian, or adaptive, leadership models. I then clarify what a model of leadership must do and argue that hers is not clearly a model of leadership at all, since it fails to specify any distinctive function for leadership. Leadership, I argue, is necessarily teleological: if no one has the function of moving the organization in the right direction, there is no leader. I examine two case studies—Zappos and Suning—both of which illustrate how such models can hinder the achievement of group goals through the diminishment of central direction and coordination. I suggest that her appeal to Adam Smith’s impartial spectator points to limits in embedded leadership, while emphasizing that leaders—though not themselves necessarily embedded—must remain attentive to the embedded wisdom distributed throughout the organization. I conclude by arguing that reliance on the self-organization of nature as a template for human organization is misguided.

Keywords Definition of leadership · Adaptive leadership · Complex adaptive systems · Teleology · Authority · Anarchy · Decentralization · Organizational naturalism

Introduction

Ends are essential to the concept of organizational leadership. If nobody is responsible for steering in the right direction, then nobody is the leader. This point is the focus of my paper, which grows out of the opportunity to respond to Pat Werhane’s “Embedded Leadership and its Discontents” (2026).

✉ David Carl Wilson
wilson@webster.edu

¹ Webster University, St. Louis, MO, USA

² Webster Vienna Private University, Vienna, Austria

Organizational leadership, says Werhane, must reckon with the fact that we are all embedded in a complex, uncertain, and unpredictable world. This means that, both for individuals and for organizations, there are serious limits to what we can know about the challenges we face and about the outcomes of our actions. Like the rest of nature, she says, we spontaneously adapt to these realities by organizing ourselves in ways that take full advantage of localized opportunities. Werhane calls this her *descriptive* thesis, and uses it to set up her *normative* thesis, namely, that leaders must embrace their natural embeddedness and use it for the benefit of their organizations. By avoiding hierarchy, empowering those without formal authority, and promoting flexibility, leaders can turn embeddedness to their organization's advantage and maximize adaptability and success.

Embedded leadership of this sort, Werhane declares without qualification, "is more suitable and successful in all forms of organizational, economic, and political life in the 21st century."¹

This model belongs to a family of ideas that reaches back to antiquity, where Daoism advances natural, anti-authoritarian, and minimalist leadership. In modern times such approaches have gained renewed prominence, starting roughly a century ago with the work of Mary Parker Follett, who extols the value of "power with" not "power over," the virtues of group processes, and the superiority of reciprocal relationships as compared to command relationships (1941). Katherine Iannello develops a nuanced variation on this view in her 1992 study, *Decisions without Hierarchy* (1992). More recent members of this family of models have been labeled adaptive leadership, complexity leadership, distributed leadership, shared leadership, innovative leadership, responsive leadership, agile leadership, participative leadership, network leadership, connected leadership, scrum leadership, sociocracy, adhocracy, and holacracy. There are differences among all of these, of course, but they are chiefly differences of emphasis. Their common objective is to maximize organizational adaptability by emphasizing decentralization and individual empowerment.

Werhane's Case for Embedded Leadership

What are the emphases of Werhane's model, and why would such leadership be suitable for all forms of organizations?

A central theme of her paper is *anti-authoritarianism*. Werhane accepts the conceptual distinction between formal and informal leadership, and expressly intends her model to apply to both. Anti-authoritarianism, of course, can only apply to formal leadership. Formal leadership is a functional role constituted by socially endowed leadership rights and responsibilities. The rights include *official powers*, or authority, ideally designed to help the leader carry out official responsibilities. Informal leaders, by definition, have no official leadership powers; if they did, that would make them formal leaders (Wilson 2023a).² Eschewing the use of leadership authority, then, is not something they can do, having none to eschew.

¹All quotations are from Werhane's article in this issue; page numbers were not available at the time of publication.

²I have elsewhere developed the distinction between what I am calling *functional* and *descriptive* roles (2023a). It first emerges in the sociological literature in Linton (1936), and is progressively sharpened through the work of Parsons (1951), Merton (1957), Goffman (1961), and especially Bruce Biddle (1979). The functional leadership role can usefully be called formal leadership, as long as it is understood to be *de facto* formal leadership, not necessarily *de jure*. *De facto* roles are not always identified, for example, in

Werhane repeatedly calls for formal leaders to rely upon their personal powers, not upon their official powers—that is, not upon their authority—in order to get things done. She opens her paper by defining ideal leadership by its avoidance of “dictating commands.” And she ends the paper, similarly, with a call for “embedding, not commanding, leadership.” In between, she notes that embedded leaders “recognize the artificiality of power hierarchies,” they are “neither hierarchical nor bureaucratic,” and they shift the organizational emphasis to those who “do not necessarily occupy positions of authority.”

Another oft-mentioned theme in her paper is *flexibility*. Leadership flexibility, says Werhane, is “an invaluable trait in the complex systems in which she or he is embedded.” This flexibility is expressed in “context-dependent adaptations.” Flexibility, thus, is more or less synonymous with adaptability for Werhane.

And, finally, her headliner is *embeddedness*. An anti-authoritarian and flexible leader is not necessarily an embedded leader. For Werhane, embeddedness is the essential ingredient that makes these two features work. It applies when “leaders are deeply integrated within the organization’s structure and interact with their constituents on a daily basis.” This allows the leader to become “engaged with the nitty-gritty of one’s situation, its values and conflicts and the networks of communities and systems in which the situation or organization is embedded.” This provides, as I understand it, two advantages. There is what I would call the *epistemic* advantage, meaning that leaders have the knowledge necessary for “adjusting their vision to the particulars of the situation.” And there is the *relational* advantage, given that, in a flattened organization, leaders “find themselves in a complex but interconnected set of relationships.” This fosters “collaboration and shared decision-making,” putting them in the position to act as “facilitators and coaches.” The embedded, flexible, and anti-authoritarian leader thereby knows more facts and knows more people, thus being well-positioned to get better results by knowledgeably working the relationships and empowering the individuals.

One of her preferred examples is what she calls “leading from the middle,” which, she argues, is not just for middle managers; it is for all leaders, since it “entails collaborative interrelationships between so-called designated or appointed leaders and their constituents.” Another key example of Werhane’s is the matrix organization, in which it is necessary to get things done through relationships rather than by direct authority. Matrix organizations, of course, are not inimical to authority or hierarchy; they are, typically, multi-hierarchical, with managers having responsibilities in at least two different areas, but authority in only one of them—typically because a different manager has authority in the other area. But this does not undercut Werhane’s more basic point that matrix organizations illustrate how someone can sometimes get organizational results by making use of personal, rather than official, powers. Yet a third example she leans upon is that of so-called “self-organizing systems,” which continually develop organically; the mark of these systems is that “efficiency and creativity...emerge naturally within organizations much like nature crates order from chaos.” As circumstances change, the leadership structure changes, responding naturally to local needs rather than artificially to a central authority.

the organizational chart or other “formal” documents. It can also be called organizational leadership, since it is the organization, not necessarily individual persons, that the person in the role has the responsibility for leading.

What Do We Want from a Leadership Model

Werhane calls this a leadership model, and uses the term “model” some three dozen times in her paper. What is it to be a model of leadership?

Models come in all shapes and sizes—from model airplanes, to the supply-and-demand model, to the Model T. In general, a model formulates or realizes a concept in a way that serves some purpose, specifying certain features of the concept without eliminating what is thought to be essential to the concept.³ For a model airplane, the purpose might be to serve as a child’s toy; for a mathematical model, it might be to facilitate prediction or explanation; for the model of a car’s make, it might be to advance the automaker’s marketing goals. What is the purpose to be served by a leadership model? It typically serves as a recommendation for how to successfully lead. The concept of formal leadership is itself normative; a leader, by definition, ought to move the organization in the right direction (see Wilson 2018, 2023a). A model provides more details, indicating how a leader ought to do that under specified conditions. This is clearly what Werhane means by a model. Her model is itself normative, she declares. And the specified conditions are: always and everywhere.

It must be noted that her model, she claims, is not only normative but also descriptive. This seems problematic; if this is what leaders do anyway, what is the point of saying that they ought to do what they are already doing? I interpret her to mean, then, that her model is descriptive of the way that we *would* naturally lead if we allowed things to unfold without our artificial interference. So, if we wish to lead our organizations well, we ought to stop artificially interfering.

What Is the Function of Werhane’s Leader?

The first question to ask is whether it is, in fact, leadership that she is modeling. She has very little to say about how, on her model, the organizational role of the formal leader differs from the organizational role of the informal leader, except with regard to their origins. The informal leader emerges and then, perhaps, either becomes a formal leader, or recedes (the typical case, since informal leadership is strictly a descriptive role, existing only when there are followers). She notes that the formal leader, however, has been designated, appointed, or elected. But designated, appointed, or elected for what purpose? This minimization of the formal leadership function makes it difficult to distinguish her model from a model that is formally leaderless—or, to use the term in its non-pejorative philosophical sense—it makes it difficult to distinguish her model from anarchy. That is to say, except for all the talk about leadership, Werhane’s model can as easily be read as a leaderless organizational ideal as it can be read as a leadership ideal. She does not, to be sure, argue that the designated, appointed, or elected leaders be eliminated, only that they minimize their use of authority and maximize their flexibility and embeddedness. So, the question is what remains for them to do.

Do they have any function at all? She does say at the top of her essay that leaders should be “facilitators and coaches.” But this, by itself, is not helpful. Facilitators and coaches for what purpose? Facilitators and coaches might specialize in anything from branding, to time

³ For more on models, see David Carl Wilson (2020).

management, to people skills, to motivation. If they are supposed to facilitate and coach for leadership, then this only gives us facilitators and coaches for facilitating and coaching. Perhaps a clue is to be found in the work of Mary Uhl-Bien and Michael Arena, from which Werhane frequently draws. As they put it, “Leadership for organizational adaptability calls for scholars and practitioners to recognize...*enabling leadership*...as a critical form of leadership” (2018, 89). But, again, enabling for what purpose? Are we left, again, with the purpose of staying out of nature’s way?

What we are not left with, unfortunately, is any idea of what the embedded leader is supposed to positively contribute to the organization, and, thus, any way of telling whether the embedded leader is doing a good job.

Leadership Takes Aim

Formal leadership is necessarily a teleological function (Wilson 2017; 2023a; 2023b). This is not to say that there is a robust teleology for every use of the term “leadership.” There are uses that strictly reflect status, such as leading the league in home runs. There are uses that are, at most, minimally teleological; consider cases of mere initiative, such as showing leadership—or, at least, showing leader-like behavior—by going first onto the rope bridge, even when nobody follows.

Conversely, not every clearly teleological use pertains to a group; there are roads that lead to Rome and doors that lead to the basement. But, I argue, the chief reason we care about organizational leaders is that we care about the organizational telos, and the leader has been given the responsibility to advance it.⁴ Failure in that responsibility can lead us into the basement when our goal was Rome.

Werhane’s model, like many other adaptive models, is silent about the role of leadership with respect to substantive ends. If an organization has a legitimate purpose, and if it has a leader, then any useful leadership model must explicitly specify the leader’s responsibility for realizing that substantive purpose. States exist, at the very least, to provide security and welfare for the people inside them; firms exist, at the very least, to profitably provide humanly beneficial goods or services to people outside them. And they designate leaders, for better or for worse, to move the organization in that and not some other direction. As we have known for millennia, one problem with leaders is that they often aim an organization in the direction of their own illegitimate interests. But as we have also long understood, one problem with de-emphasizing leaders is that organizations can then become aimless. A good model, if it is indeed a model of leadership, should attempt to resolve this tension.

The Holacracy Example

It is illustrative to see what happens when companies try to adopt a model like Werhane’s. In 2014, the online shoe retailer Zappos decided to implement a branded, proprietary, model of adaptive leadership dubbed Holacracy (Robertson 2015). According to a 2016 *Harvard Business Review* case study, the intention of Zappos in doing so was to achieve a “flat envi-

⁴ There are, of course, other reasons we care about organizational leaders—especially when they lead organizations we are the members of and they have a direct impact upon our lives.

ronment that fosters flexibility, engagement, productivity, and efficiency” (Bernstein et al. 2016). Its intention, of course, was not to foster these features for just any kind of outcome; it was to promote them for the sake of profitability, growth, and what its calls the “WOW” factor.⁵ Zappos reconceived itself, not as a vertical collection of 150 departments with clear jobs and defined accountability, but as a horizontal organization made up of some 500 self-organizing circles of responsibility, many of them nested within larger super-circles. Individuals, who now had an enlarged ability to craft their own contributions, had an average of 7.4 different roles and 25 different responsibilities, which required membership in 4.1 different circles—numbers that were continually changing for each person.

The biggest challenge this presented was in the coordination of information and activities across the organization. Each circle met weekly, requiring an average of about four different circle meetings per person. And all of the shifting roles, responsibilities, and accomplishments had to be meticulously documented. There were two surprising results, according to the case study. One was that, even though there was less hierarchy, there was far more bureaucracy. In a classic case of what sociologists have long identified as goal displacement, the focus shifted from purpose to process. Another result, as Zappos later acknowledged, was the unexpected loss of focus when it no longer “transmitted guidance from the top” (Bernstein et al. 2016, 47). In the absence of a strong sense of direction from its leaders, there was not only inefficiency owing to the efforts to replace it within the flattened structure, there was also fragmented messaging, drift, and duplication. The outcome? *Quartz* reported: “Zappos has quietly backed away from Holacracy” (Staley 2020).⁶

The Agile Leadership Example

Holacracy, of course, is not the only possible formula for Werhanian embedded leadership. Consider Agile Leadership, another system that is marketed by many consultancies; its roots are in 2001’s Agile Manifesto, which itself grew out of the software development community. It is committed to self-organizing teams, individual interactions, minimal hierarchy, and rapid responsiveness to change. Suning, once a market leader in China’s retail sector, was concerned in 2015 that “the landscape evolves so rapidly today that companies can’t keep up” (Liao and Zhu 2024), and they decided to implement an agility leadership program. This was not, of course, to “keep up” for the sake of keeping up, but for the sake of a substantive end: in their case, it was the end of profitability in the context of what they describe as their “Sunshine Mission” of transparency and social responsibility.⁷

⁵ <https://www.zappos.com/c/about>.

⁶ Perhaps, it might be argued, part of the problem was Zappos’ size. Compare, then what happened when the tiny online publishing company Medium decided to implement a similar Holacratic transformation, at about the same time. Their COO, Andy Doyle, reported similar goals: decentralized authority and self-organizing teams, with “trust and responsibility in the hands of individuals at all levels,” since “great ideas can come from anywhere.” With about 50 employees, about 3% the size of Zappos, better results might have been expected. But the same problems emerged. Coordination across functions proved to be “time-consuming and divisive,” and undermined the “sense of communal ownership.” The system got in the way of the work. “So,” Doyle wrote in 2016, “we’re off holacracy” (2016).

⁷ <https://www.suning.cn/static///snsite/contentresource/2020-05-20/040386c3-c8f3-438e-9945-07b674473d59.pdf?>

As a result of Suning’s transformation, according to another *Harvard Business Review* study, it “repeatedly pounced on digital trends and other opportunities,” displaying “remarkable agility by continually responding to changes...and seizing new opportunities.” But this did not produce favorable results. Suning diversified too much, suffered sustained losses, and soon had to close down multiple divisions. The authors of the study conclude that too much agility can “spread resources thin,” “foster a short term focus,” and result in a failure “to develop the vision they need to achieve sustained success” (Liao and Zhu 2024, 130).

These cases do not show that Werhane’s ideas can never succeed. Not every leader needs a megaphone; indeed, not every group needs a formal leader. But I include them because they illustrate the point that when substantive organizational direction is introduced into the equation, formal leadership takes on renewed significance. Zappos’ explicit ends required company-wide coordination, but the necessary bottom-up meetings and documentation introduced crippling impediments. Suning chose an approach that omitted these inefficiencies, but the ensuing lack of coordination resulted in a nearly lethal loss of direction. One important reason for the failure of these two Werhane-like cases, is that the dilution of the teleological leadership function can undermine an organization’s ability to move in the right direction.

How and Why Should the Leader be Embedded?

It would also be helpful to understand more about how and why the leader is to be embedded. This is not a problem with small groups, like classes, teams, bands, and clubs, when the leader is on the scene. But will embeddedness in the nitty gritty provide the leader of a large organization a true epistemic advantage with respect to the teleological responsibility of leadership? Where should the leader of a state be embedded? In the police department, on a road crew, or in a county courthouse? And the leader of a corporation? In accounting, in IT, or in maintenance?

This is where one of Werhane’s arguments works against her. In making her initial case that we should not be committed to a single comfortable model of leadership, she notes that we suffer from what she calls “silo mentality.” This occurs, she notes, at various social levels, including the organizational level: it can occur, for example, when someone within “a particular division of an organization or an organization itself...is so focused on their priorities or their expertise that they neglect or fail to perceive how those priorities affect or are affected by other...divisions in the organization....” This sort of limitation, which is related, as she notes, to Herbert Simon’s notion of bounded rationality, means that many of us “have blind spots or miss some important information....”

It is, in other words, a problem with embeddedness.⁸ And Werhane, by coincidence, suggests at least a partial solution to this embeddedness problem, found in the idea of the impartial spectator as expressed by the Scottish moral philosopher and economist Adam Smith. She approvingly describes Smith’s emphasis upon developing the ability to “step back and study our surroundings...and revise our mental models, expectations, and lives,” in order to “make better judgments and redirect our lives accordingly.” This makes it hard to avoid the

⁸ This was a lesson from the adventure of embedded journalism during the Iraq war. It may have led to a deeper understanding of particular experiences, but, if anything, it contributed to a less balanced understanding of the conflict.

following inference: if stepping back for a more synoptic and less subjective perspective can be helpful for adopting improved leadership models, as Werhane says, or for redirecting our lives, as Smith says, then it can surely be helpful for directing our organizations.

Sometimes, as with Plato's famous parable in the *Republic*, the ship needs a skilled navigator who is looking above and ahead at the stars, the clouds, and the seascape to plot the best course to the destination. And the best course is seldom to drift, naturally, with the winds and the tides in which the ship is embedded. More emphasis upon the teleological function of leadership, impossible from an embedded position, would have been a boon to Zappos and Suning.

This is not an argument in favor of a full-blown "impartial spectator" model of leadership. Organizations cannot entirely ignore Werhane's central point; their leaders can suffer from too much detachment, just as, I have argued, they can suffer from too much embeddedness. The political scientist James Scott offers a compelling case against overly detached leadership in his classic book, *Seeing Like a State* (1998). In eye-opening detail, Scott shows how utopian planners—state leaders, technocratic reformers, urban architects, and corporate masterminds—consistently strive for rational hierarchical systems which are, in theory, easy to run from the top down. The leaders and planners are maximally disembedded impartial spectators. Even when they act in the sincere but misguided belief that it is best for those who are being served, Scott is not reluctant to label it hubris. And, in their hubris, Scott argues, they sweep away local practices, customs, and experiential knowledge as obstacles to be removed rather than as essential sources of intelligence. Scott's argument is not that we can dispense with systematic teleological coordination, but that we *cannot* dispense with what he calls "embedded" wisdom (1998, 83, 227–28). So, his argument is not Werhane's, that leadership must always be embedded. Scott is arguing, rather, that leadership cannot aim truly unless it takes the entire range of embedded wisdom seriously.

Should Nature Be Our Guide?

Werhane's grassroots approach is inspired, in part, by the example of nature. She endorses an organizational environment in which results "emerge naturally...much like nature creates order from chaos." She speaks disparagingly of "the artificiality of power hierarchies" and prefers "self-organizing systems."

This is an initially attractive notion, and is worthy of closer examination. Does nature indeed favor non-hierarchical neurological structures and flat societies? And, even if it does, should this inform human organizational structures?

The Wisdom of the Octopus

Let us look first at examples of organisms that are found in the natural world. Consider the octopus. Peter Godfrey-Smith is an Australian philosopher who has studied octopuses extensively. Here is a fascinating overview of some of his findings:

Octopuses are "good at navigation," Godfrey-Smith writes, but with nine brains and eight arms to lead the way, there's almost nothing direct or linear about their progress

across the ocean floor or along what he calls the “jumbled animality” of a coral reef. To us, forward means straight ahead....But to an octopus, forward can be found in any direction. “its arms are partly *self*,” Godfrey Smith notes. “But from the central brain’s perspective, they are partly *non-self* too, partly agents of their own.” ...Imagine looking down and discovering that whatever you think your brain is planning, your two legs have made quite separate plans and are already underway in different directions (Klinkenberg 2025, 8).

Another octopus expert, marine biologist David Scheel, sees here “the evolutionary embodiment of the wisdom of the octopus.” Curiosity in the octopus, he says, is:

...a function of bodily design. ...Curiosity and intention are dispersed throughout the octopuses tissues—right out to the tips of its tentacles. Inquisitiveness...is built into the octopuses’ anatomy (Klinkenberg 2025, 9).

This “wisdom of the octopus” emerges, thus, from an anatomical structure that is maximized for innovation, as organizational theorists would put it. There is little or no top-down authority. “Executive” neurons are distributed, “decisions” are made locally, and flexibility is maximized.

This can serve as a brilliant analogy for decentralized and highly adaptive organizations that exemplify Werhane’s ideal of embedded leadership. Note, of course, that we do not exactly find in it an analogy for leadership. The anatomy of the octopus, as described, does not include anything with that enduring functional role. Thus, it offers no analogy for formal, or organizational, leadership. It provides us, rather, with a marvelous example of organizational anarchy.

Each arm is empowered to, as it were, make decisions. But this is not in and of itself leadership, not even informal leadership; it is simply local decision-making. We see the same thing in the local marketplace, when sellers raise prices in response to scarcity, and, by analogy, in the spinal reflex arc, in response to a hot coffee cup that must be dropped quickly. Each neatly illustrates locally empowered action in the absence of any sort of leadership, formal or informal.

In the octopus, this local decision-making sometimes does have an influence on the direction of the larger organism. So, yes, octopus leadership can exist, since sometimes the “decision” made by one arm—but at other times by another arm—has an influence on the direction of the octopus. This represents leadership not by virtue of ongoing functional rights and responsibilities, but leadership by virtue of influence that comes and goes. It is, in effect, informal, descriptive, leadership in the absence of formal, functional, leadership.

When this works, in either the octopus or in organizational life, it can work well. So, perhaps unsurprisingly, the octopus has recently been proposed in the business literature as a good model for any organization; not unlike Holacracy and Agile Leadership, the Octopus Organization model has now been systematized and branded (Werner and Le-Brun 2025). Is the octopus a universally useful template? It clearly works in organizations like Alcoholics Anonymous, the Wikipedia community, and the Quaker church. But it works at least partly because these organizations, like the octopus, tend to be highly modular, and include plenty of redundancy, so that failure in one module does not seriously undermine the whole. Their organizational behavior, furthermore, does not need to be tightly synchronized; quick and

accurate communication throughout the system is not essential; and there is plenty of time for innovation in one node to be distributed throughout the system. But there are many organizations in which none of this is true, and in which Werhanian leadership would be a disaster. Consider military units in combat, sports teams in competition, and symphony orchestras in performance.

The Wisdom of the Hummingbird

Nature provides analogs of highly centralized executive structures as well. Hummingbirds, “the Olympic gymnasts of the avian world” (Lapointe 2024), have as much executive focus as octopuses have executive diffusion. They must single-mindedly concentrate on exact neural timing for every movement, constantly making micro-corrections to successfully hover or navigate. This precise central coordination, in turn, contributes to maximization of their energy efficiency. Their brains make up a whopping 4.2% of their body mass, having “evolved to make rapid transitions from visual signals to motor outputs” (Lapointe 2024). Says one scientist:

You watch them fly through the forest, and they’re dodging trees and moving branches in the wind—and each other. They are adept at taking in lots of complicated visual information and making a robust and safe flight plan out of that (Lapointe 2024).

Analogically, there is a formal functional leader, the leader is issuing constant commands, and there is little room for independent action. When it works, it can work well, because, unlike the octopus, there is almost no redundancy, failure in one node can produce systematic failure, and synchronicity and instant communication are essential.

The wisdom of the hummingbird, like the wisdom of the octopus, evolved naturally in order to suit the organism’s own unique qualities and its own particular environment. Either, it seems, would be folly if applied to the other. Do not try hummingbird leadership with AA, the Wikipedia community, or Quakers. But do not try octopus leadership with soldiers in combat, performers in classical music concerts, or athletes competing in team sports.

So, if we look to naturally occurring biological systems for guidance, we find dramatically differing cases. Some successful organisms are highly centralized, while others are radically decentralized. It all depends upon variations in the environmental conditions, variations in whatever we pick as the starting point for understanding the organism, and whatever unintended mutations in the organism happen to be reproductively advantageous under those conditions. Those making the case for nature as our guide might, at this point, concede that there is no universal template, but nevertheless might try to salvage something with the following moves: find an organism that has internal and environmental conditions that are analogous to those of a specified organization, determine which mutations have been successful for that organism, and apply them analogously to that organizational structure. There you have it—reason to adopt either octopus or hummingbird leadership!

The problem with this comes back to ends. Evolution, of course, has no end—no purpose, aim, objective, target, or telos.⁹ It is a simple matter of statistically representable

⁹ Evolutionary scientists use more technical terminology, such as “the statistical outcome of differential reproductive success in shifting environments” (Latta 2010).

reproductive advantage, with no preconceived intention behind it. But this, at least, can be called direction. Like a leaf dropping to the ground, there is direction without intention. For the leaf, the direction is the result of gravity; for biology, the direction is the result of the sorting effect of evolution. So, if we allow the direction of evolution to serve as an analogy for the purpose of an organization, the argument for octopus or hummingbird leadership would only succeed if the purpose of the organization were the reproductive success of the organization itself. We may sometimes forget that our organizational goals are usually loftier.

So, we find here ideas and inspiration for leadership, just as we do in mythology, art, and dreams. But not guidance.

The Social Behavior of Animals

But maybe there is a better place to look for a generally applicable natural model. Nature, after all, overflows with examples of successful social behavior in cognitively simple animals. Potentially useful cases are easy to find, many of them congenial to Werhane's model. Honeybees, termites, and unicellular slime molds, in the absence of any member with the leadership function, can almost instantly message their entire group with various chemical, tactile, or acoustic signals, resulting in successful adaptive group behaviors. These cases are analogous to the octopus in their lack of hierarchy, their flexibility, and their embeddedness. But it is their structural disanalogies to the octopus that may render them of special interest. They are not modular, information travels quickly, and synchronous action is possible.

Further, the good news for models like Werhane's is that there seems to be no clear case of hierarchical social behavior in cognitively simple animals.¹⁰ Can this serve as grounds for a case against hierarchy in human organizations? The answer is decisively no, for two reasons.

First, why would brainy creatures wish to emulate brainless ones? There is a good reason why hierarchical behavior only tends to appear among organisms as they increase in cognitive ability and lifespan. Animals like African elephants, gorillas, and wolves are able to, in some sense, recall the past, imagine a future, and see themselves in it. Regardless of whether all of their behavior may ultimately be genetically and culturally determined, when they look through their own first-person lens, these creatures have individual proto-projects which can sometimes be advanced by membership in a group in which a member has some responsibility for coordination and direction (de Waal and Tyack 2003). As creatures become more capable of individual goals, they also become more capable of collective goals, and more likely to favor leadership.¹¹

In short, we thinkers have things that we think about and care about. Cognitively simple social groups do not, and this deficit has much to do with their non-hierarchical success. As individuals, their members are hardly aware of any moment other than the present; they

¹⁰ There can be role differentiation, and there can be dominance, but these are not leadership. The queen bee's differentiated role is strictly reproduction; and the dominance of some wasps, in a different way, plays only a reproductive role (Couzins 2009).

¹¹ But even this feature is not universal. Large mammals in aquatic environments, where resources are widely dispersed and there is no territory to defend, are far less likely to adopt anything that resembles an ongoing hierarchy.

have scarcely any identify other than that of group member; and the group is ready to sacrifice large numbers of them (as the octopus is willing to sacrifice an arm) without serious harm to the whole. None of these features would be attractive to leadership scholars who see the absence of hierarchy as inherently more respectful of human dignity. This, alone, is reason to hope that the ill-advised Octopus Organization brand is not soon joined in airport bookstores by the Slime Mold Leadership brand.

And, second, there is the problem of ends. The non-hierarchical social behavior of cognitively simple animals is also the result of evolution, and, thus, also proceeds strictly in the direction of reproductive advantage. To justifiably look for guidance in the organizational structure of these animals, we must not only discount our ability to imagine and plan for a future we want, but we must be satisfied with a goal no better than the mere preservation of the organization.

In short, nature's evolutionary success cannot justify any decision about how to organize or lead human beings. Organizational ends cannot be avoided, and reproductive success is rarely our organizational end. It may be objected that leadership is also about means. True, but means can only be understood and assessed with respect to ends. I know nothing about a means, as a means, if I do not know its end. The door to the basement is not the road to Rome. Or, it may be objected that our ends are often vague or unstated. But vague ends and implicit ends are still ends. We know what it means to go to the store, even if we have not yet decided which store and if we seem to have misplaced our list of things to buy. More to the point, we know roughly what it means for a state to aim for the security and welfare of its people, and for a firm to aim for the profitable delivery of goods or services. And, in each case, it is decidedly not the statistical outcome of reproductive success.

Conclusion

Werhane's account of embedded leadership highlights organizational features that are worthy of our attention. But her account goes too far by arguing for her model's universal applicability. What it is missing is the essential directional function of leadership. When we have a formal organizational leader, it is, in effect, because there is a direction we want to go and we want someone to be responsible for ensuring that we are moving in the right direction. The absence of hierarchy leaves nobody with that responsibility, which presents challenging problems of coordination and direction for most sorts of substantive organizational goals—goals such as providing security and welfare for the citizens, or profitably providing goods or services for an external market. And the requirement of embeddedness would seem to require the leader to sacrifice a broad and balanced grasp of the organization and its environment in favor of first-hand mastery of only one of its components. And it does not help to seek parallels in nature's ability to successfully organize itself.

To prescribe a single model for all leadership because of the complexity of the world is to misunderstand that very complexity. Increased complexity is a reason for openness to more ways of moving organizations in the right direction, not for narrowing the options to one. In this complex world, organizations have a vast array of goals. Their members have goals of their own, not to mention diverse skills, needs, and flaws. They operate in dramatically different environments. If there is a universal, if there is one thing that the organization and the society must universally expect of every leader, it is this: insofar as the organization's ends are legitimate, the leader must focus on the responsibility to move the organization in the right direction.

Author Contribution The author is solely responsible for this article.

Funding This article received no outside funding.

Declarations

Ethical This article does not contain any studies involving human participants or animals performed by the author.

Conflict of interest The author states that there is no conflict of interest.

References

- Bernstein, E. S., J. Bunch, N. Canner, and M. Lee. 2016. Beyond the holacracy hype. *Harvard Business Review* 94(7/8):38–49.
- Biddle, B. J. 1979. *Role theory: Expectations, identities, and behaviors*. New York: Academic.
- Couzin, I. D. 2009. Collective cognition in animal groups. *Trends in Cognitive Sciences* 13(1):36–43.
- de Waal, F. B. M., and P. L. Tyack. eds. 2003. *Animal social complexity: Intelligence, culture, and individualized societies*. Cambridge, MA: Harvard University Press.
- Doyle, A. 2016. Management and organization at Medium. *Medium*, March 4. <https://medium.com/blog/management-and-organization-at-medium-2228cc9d93e9>
- Follett, M. P. 1941. *Dynamic administration: The collected papers of Mary Parker Follett*, ed. H. C. Metcalf, and L. Urwick. New York: Harper & Brothers.
- Goffman, E. 1961. *Encounters: Two studies in the sociology of interaction*. Indianapolis: Bobbs-Merrill.
- Iannello, K. P. 1992. *Decisions without hierarchy: Feminist interventions in organization theory and practice*. New York: Routledge.
- Klinkenborg, V. 2025. Such flexible intensity of life. *The New York Review of Books*, 72 (15): 6–11.
- Lapointe, E. 2024. Hummingbirds control their flight with a newfound mechanism. *Scientific American*, 330 (4): 10.
- Latta, R. G. 2010. Natural selection, variation, adaptation, and evolution: A primer of interrelated concepts. *International Journal of Plant Sciences* 171(9):930–944.
- Liao, J., and F. Zhu. 2024. How to avoid the agility trap. *Harvard Business Review* 102(6):126–133.
- Linton, R. 1936. *The study of man: An introduction*. New York: D. Appleton-Century Company.
- Merton, R. K. 1957. *Social theory and social structure* (Rev. and enl. ed.). Glencoe, IL: Free Press.
- Parsons, T. 1951. *The social system*. Glencoe, IL: Free.
- Robertson, B. J. 2015. *Holacracy: The new management system for a rapidly changing world*. New York: Henry Holt & Company.
- Scott, J. C. 1998. *Seeing like a state: How certain schemes to improve the human condition have failed*. New Haven, CT: Yale University Press.
- Staley, O. 2020. Zappos has quietly backed away from holacracy. *Quartz*, May 17. <https://qz.com/work/1859278/zappos-has-quietly-backed-away-from-holacracy/>
- Uhl-Bien, M., and M. Arena. 2018. Leadership for organizational adaptability: A theoretical synthesis and integrative framework. *The Leadership Quarterly* 29(1):89.
- Werhane, P. 2026. Embedded leadership and its discontents. *Philosophy of Management*, 25 (1).
- Werner, J., and P. Le-Brun. 2025. *Become an octopus organization*. November–December: Harvard Business Review.
- Wilson, D. C. 2017. Leadership, management, & the history of ideas. *Philosophy of Management* 16(2):183–189.
- Wilson, D. C. 2018. The leading edge of leadership studies. *Philosophy of Management* 17(4):373–378.
- Wilson, D. C. 2020. *A guide to good reasoning: Cultivating intellectual virtues*. Minneapolis: University of Minnesota Libraries Publishing. <https://open.umn.edu/opentextbooks/textbooks/929>
- Wilson, D. C. 2023a. Defining leadership. *Philosophy of Management* 22(1):99–28.
- Wilson, D. C. 2023b. The philosophy of management today. *Philosophy of Management* 22(4):493–503.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Springer Nature or its licensor (e.g. a society or other partner) holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.

David Carl Wilson is Professor of Philosophy at Webster University in St. Louis, Missouri, USA, and Webster Vienna Private University in Vienna, Austria. He earned his PhD in philosophy from UCLA, where he taught, and served as Associate Provost, before moving to Webster to serve as Dean, now Dean Emeritus. He is the author of *A Guide to Good Reasoning: Cultivating Intellectual Virtues*, and serves on the executive editorial board of *Philosophy of Management*. His research focuses on moral philosophy, social philosophy, and the conceptual foundations of leadership and management.