

ABSTRACT

The ancient Greek political philosophies of Plato and Aristotle present a rivalry between two visions of political rule: i) a kingly *techne* where the city and citizenry are treated like malleable material to be formed and controlled toward predictable ends in the same way a craftsman makes a product or; ii) a phronetic rule where politics is spontaneous, adaptable and guided by an overarching understanding of what makes for a good and happy life. It might be said that today we still face this same choice. If our goal as human beings and citizens is security in the predictable and controllable, then we should embrace the rule of the *technitês*. Indeed, our current drive to understand and manage our bodies and minds through the “crafts” of genetic engineering and neuroscience, suggests that we are not willing to leave anything to chance as we seek a thorough technical control of every aspect of our physical, emotional and psychological selves. As it stands, we seem to have chosen the leadership of the craftsman-king. However, if our goal is to contemplate and articulate what is good for our families and communities, then we should instead embrace the rule of a *phronimos* that is able to weigh traditions and customs with circumstances unique to our age.

A Tale of Two Cities: Plato's Kingly *Techne* and Aristotle's Phronetic Rule

By David Edward Tabachnick

I

We have been aware of a “problem” of technology for a long time. For at least the last two centuries, poets and philosophers have articulated a deepening antipathy to the transformation of both the natural world and the way we live as factories and smokestacks began to crowd our skylines and cars and pollution began to clog our streets and air. When the iconoclast poet William Blake wrote about the “dark Satanic mills” blighting “England's green and pleasant land” at the turn of the nineteenth century, he was expressing a growing concern that something important was being lost in the frenetic rise of industry and machine technology. But, even before the industrial revolutions or the even earlier scientific revolution there was already available a much older forewarning of the underlying problem of technology.

Over two thousand years ago, the ancient Greek philosopher Aristotle realized that human society was determined by two main governing, ruling or “directing faculties” through which we could understand the world and our place in it. On the one hand, technical knowledge or *techne* allowed us to build the physical infrastructure of our communities, what the Greeks called the *polis*, and all of the tools and crafts we use in our everyday lives. Through the lens of *techne*, we see the world as something to be worked upon and organized in such a way that it becomes useful to human beings. Trees become lumber, rock becomes stone blocks for building, and animals become food and material for clothes. On the other hand, good judgment or *phronesis* allowed us to pass on and modify the *ethos* or cultural character of the *polis* from generation to generation. Through the lens of *phronesis*, we see the way particular traditions, customs, habits and laws of a community can be applied to daily decisions while at the same time considering the unique and changing circumstances of current human events. Because *phronesis* embraced the diverse and

unpredictable practices of human beings, it lacked the certainty associated with the products of technical knowledge and thus often left the future direction of the *polis* in difficult ambiguity. In turn, Aristotle identified a tension or struggle for supremacy between these two ways of seeing the world. If *techne* were to become the supreme directing faculty that determined the course and character of the *polis*, then life and society could be produced in a predictable and reliable manner in the same way a craftsman produced his crafts. By overcoming the role of chance and the unknown, the technically run *polis* would be safe and secure; eliminating the uncertainty associated with *phronesis*. The problem, Aristotle warned, is that this would also require human beings to be treated as mere material, worked upon and organized so that they too would become predictable, reliable and useful. It is with this problem in mind that Aristotle decided that *phronesis* rather than *techne* should be the supreme directing faculty of the *polis*. Even though it cannot claim to provide guaranteed results, the *phronesis* run *polis* would still provide the room that the unique character of human beings needed to flourish. In this city, the citizens would determine the character of its crafts rather than craftsmen determining the character of its citizens.

But now Aristotle's warning has been largely ignored or forgotten. We have chosen to live in the "second city," so to speak. We have accepted the primacy of a technological vision of life and society and have subordinated the role of good judgment. This has produced unprecedented affluence, cures and treatments for disease as well as an endless supply of products to satisfy our every want. At the core of these successes are the technological impetuses to quantify and control everything toward the achievement of desired ends. And yet by this very effort we have obscured our understanding of what those ends once were or might be. For example, recent discoveries in neuroscience and biochemistry have allowed us to develop powerful drugs that can overcome chronic depression and alleviate anxiety, clearing the way for individuals to live fuller and more complete lives. With great skill, we have been able to quantify the mind and control its function. And we are only in the early stages of this process. As our ability expands and as these drugs become more prevalent in their use and broad in their application, they will no longer be just therapies to treat disease but a means to further control the function of our psychology, enhancing and manipulating our emotional and intellectual states of being. As a result, what was originally introduced to clear the way to a happy life actually provides a different end altogether: a total control of what we think and feel. What seems to get lost in the process is our capacity to appreciate the original, non-technological impetus for the creation of these drugs: our original judgments about what made for a happy life. We see a similar possibility in the new field of therapeutic cloning. The discovery of stem cells that can be manipulated to develop into any type of human tissue offers great promise to cure diseases and provide an endless supply of perfectly matched organs for transplant. It is easy to see that, as our ability to quantify our genetics expands, this therapy will extend beyond medical uses toward a more liberal control of our bodies, augmenting it to make us stronger and faster as well as enhancing our sense organs in any way we desire. As we quantify and control the human body, the main impetus for the creation of this therapy is obscured: our judgments about what made for a healthy life. In both examples, the technologically prescribed standard comes to subordinate the original human standard. As this new standard becomes more and more ubiquitous, we will have less and less memory of why we developed the technology in the first place. As Aristotle warned, human beings will become mere material to shaped and formed in any which way by technology.

II

So, even though the ancient Greeks did not live in a technological society, they were still aware and concerned that the unlimited application of technical knowledge was highly problematic and even dangerous. They understood that human beings required the products of technical knowledge to live good and happy lives but also recognized that, if all we lived for were these technologies, we would end up living bad and unhappy lives. If the ancients shared astonishingly similar concerns with us about placing limits on technology, then it is worth further considering the ways in which they responded to these concerns and how we can apply these lessons to our own circumstance.

The effort to revive and apply the lessons of the ancients to our contemporary technological dilemma has a rich recent history, having been taken up by a number of leading twentieth century thinkers, including Hans Georg Gadamer and Hannah Arendt, both students of Martin Heidegger, and the British philosopher Alasdair MacIntyre. These philosophers of the technological age share a common anxiety that we have become incredibly narrow-minded in the way we live and think—filtering almost all of our thoughts, choices and decisions through the constricted lens of technology. Because for them modernity has closed off alternative ways of understanding and living (both ethically and intellectually), they look to the origins of our civilization — to the philosophers of the ancient world — for guidance and inspiration, to revive our flagging sense of community and self.

More than anyone else, these thinkers look to Aristotle. They see Aristotle's description of the "intellectual virtue" of *phronesis* as especially relevant to our present dilemma. In his *Ethics*, Aristotle described *phronesis* as "a reasoned and true state of capacity to act with regard to human goods."¹ Like *techne*, *phronesis* is an "intellectual virtue" or a personal quality that helps guide individuals to correct thinking. These virtues, which also include *episteme* (empirical knowledge), *sophia* (philosophical wisdom), and *nous* (comprehension of the first principles), are developed and honed through a good education and individual contemplation. The other set of virtues identified by Aristotle, the "ethical virtues" such as courage, moderation, and generosity, while still connected to the intellectual virtues have less to do with thinking and relate more to controlling the emotions, passions and appetites. He described them as good habits that are (hopefully) learned at a young age in the home.

Aristotle explained that all of these virtues fall within a larger hierarchy with the lower virtues guided by the influence of the higher virtues. For example, in a city at war, the bravery of a soldier defending the community from attack is superior to the skill of a cook able to prepare good food. While both citizens could be considered virtuous, the needs of the soldier to eat healthy rations so he is ready and able for battle should determine what kind of food the cook ends up making. Here, the virtue of the soldier should guide the cook and the skill of the cook should serve the soldier.

Aristotle took this same idea and goes on to advise that in general the most intellectually and ethically virtuous citizens should rise to positions of power and prestige, the less virtuous serving them, and that the least virtuous or most vicious be shunned or imprisoned. He also warned that if this hierarchy is upset or disrupted then the city will be dysfunctional and unable to provide essential goods for its citizens. And while the ancient world has numerous examples of city-states and political leaders not heeding this warning, it is still fair to say that the practice of virtue made up the foundation of ancient Greek politics, law, ethics, and social norms.

As with most things Aristotelian, the intellectual virtues can be further sub-divided into two groups. Where *techne* and *phronesis* share a relationship to the constantly changing and

practical world of human affairs, the other three intellectual virtues identified by Aristotle are instead purely theoretical or connected to things that do not change. *Episteme*, for example, relates to the study of the natural world. Employing this virtue, a theoretical scientist might study astronomy or the moon's orbit. Obviously, this study is not going to change the position of the stars or the way the moon moves around the earth. The effort is not to change but to merely understand. So, while this empirical knowledge of the heavens can be demonstrated or proven through a scientific account, it does not have any immediate practical or useful application. We might call "pure sciences" such as contemporary astrophysics or the study of quantum mechanics good examples of *episteme*. Likewise, employing *sophia*, a philosopher may seek out the truths of the universe. However, if he were to grasp them, he has no expectation of changing those truths or interest in utilizing that knowledge toward any useful end. Socrates, the model philosopher of the ancient world, was not exactly the most productive or practical fellow; spending his days wandering the streets of Athens looking to start an argument while paying no attention to his job or his family.

Because these intellectual virtues do not really change the world, theoretical scientists and philosophers have only an indirect interest in the goings on, problems and concerns of their fellow citizens. Indeed, these thinkers might be said to have their heads in the clouds, craned upward to the sky (or downward to their microscopes) so that they can better contemplate the outer and inner workings and meaning of an unchanging cosmos. The kind of thinking associated with these three theoretical virtues might be best described as "an end in itself"—personally fulfilling, but not expected to provide anything of use. These virtues should instead be judged on their own merits, not whether they produce some sort of new gadget, timesaving device or moneymaking scheme.

Of course, astronomers, astrophysicists, and even philosophers may object to being labeled as "useless." Funnily enough, Aristotle countered this very concern with a story about the philosopher Thales. As the story goes, Thales was reproached by his fellow citizens for his lack of wealth, told that he spent far too much time studying the movement of the heavens and not enough time making money. To counter his critics, he used his observations of the stars to predict the coming of a good growing season and a bumper crop of olives. Keeping the details of his forecast to himself, he bought up all of the olive presses at a low price. When the large harvest of olives came in, he then rented the now highly-valued presses out at a large profit. This proves, Aristotle explained, "that it is easy for philosophers to become rich if they so desire, though it is not the business which they are really about."² The point of the story is that, because the practice of philosophy is hierarchically superior to the lower virtue of moneymaking, the philosopher is actually able to understand economics and, in turn, influence its practice. Of course, the real business of philosophy is instead to help us understand and explain the meaning of existence, as hard as this may be.

Those with the virtues of *techne* and *phronesis*, on the other hand, change the world; they directly participate in and improve the lives of their neighbours and fellow citizens, solving problems and even making money. *Techne* "brings into being" the "external goods" everyone requires to live a comfortable life and *phronesis* guides the development of good ethics and laws, including the regulation of the amount and kind of external goods or technical products allowed in their political community or the *polis*.³ *Phronesis* is not opposed to or in conflict with *techne* but limits and guides its role. So, rather than allowing the craftsmen themselves to develop appropriate laws and prohibitions on their various arts, a good politician informed by *phronesis*

must have a capacity to decide which technical products will serve the city and which will harm it.

This relationship between *techne* and *phronesis* is part of the hierarchy of virtues that leads the *polis* as a whole toward the final goal of the “good life.” Aristotle named this goal *eudemonia*, which can be translated as felicity, happiness or, more generally, living well. For Aristotle, living well meant that a person is fully and completely satisfied in all aspects of their lives— having personal health, a sense of public purpose, as well as intellectual fulfillment. He also recognized that different people may require different kinds and ratios of satisfaction; some focusing more on health, others on wealth, and yet others on intellectual pursuits such as philosophy. Likewise, different cities required different composition of citizens; some having need of more artisans, others soldiers, and yet others politicians.

As Aristotle concluded, a person traveling down their proper path to the good life, fulfilling their purpose—their *telos*— will experience great pleasure and happiness. It follows that one can know they are traveling down the wrong path if they are in pain (physically, emotionally and/or intellectually) and miserable. How one *polis*, one set of ethics and laws, can facilitate and provide for as well as educate and direct the multiplicity of paths to *eudemonia*, allowing for all citizens to reach their final goal, is the critical and difficult task given to community and political leaders. If these leaders are successful, not only will each citizen be happy but also the *polis* as a whole will be considered a pleasant and good place to live.

Notably, Aristotle did not think there can be *eudemonia* for people living outside of the *polis* because, “. . . man is by nature an animal intended to live in a *polis*.”⁴ For him, we are political animals (*politikon zoion*) because our *telos* can only be attained within the context of the comforts, protection, and education found in a well run political community. Obviously, a community racked by inferior leadership, political corruption and ineptitude, poverty and violence will be unable to achieve this most important goal.

III

With this in mind, *techne* and *phronesis* are key virtues for the proper running of the *polis*. While the moon will continue to orbit the earth and the eternal truths of the cosmos will continue to be true with or without scientists and philosophers to study and think about them, the amount and kind of external goods necessary for living well will simply not exist without the technician or *technitês*. They have a precise know-how to make things that people need: the cobbler has a *techne* of shoemaking; the house-builder has a *techne* of house building, etc. The distinction of *techne* is that it produces useful things in a predictable and consistent manner. Rather than relying on things produced by nature (*physis*) or waiting for things to come by chance (*tuche*) as is the fate of wild animals, *techne* gives human beings the tremendous advantage of making what we need when we need it. The craftsman’s art satisfies our material needs and frees up time for more lofty concerns and practices such as politics and philosophy. Clearly, without citizens with this sort of expertise, these valuable products would simply not appear in the *polis*, leaving citizens without shelter, shoes, agriculture as well as all the other technical products we associate with living well.

According to Aristotle, *techne* is “a state of capacity to make, involving a true course of reasoning.”⁵ Significantly, because it involves “a true course of reasoning,” the *technitês* is able to clearly articulate and teach that expertise to students and apprentices. In turn, not only is the virtue of technical knowledge easily passed down from one generation of technicians to the next

or transferred from one civilization to the next, it can also accumulate and incorporate new skills and expertise as they are discovered and refined. The wonder of *techne* is that it can be amassed, written down in an instruction manual, appended and updated, growing larger and more complicated with every passing day.

Like *techne*, the intellectual virtue of *phronesis* also relates to the mutable world of human beings. While the term is found throughout many ancient Greek texts, it is hard to define because it does not have an obvious contemporary counterpart, as is the case with *techne*. Sometimes it is called prudence. Other times it is practical wisdom, practical intelligence or practical deliberation. A better and simple translation is “good judgment” because it suggests that *phronesis* requires both intelligence *and* experience. Again, Aristotle explains that *phronesis* is “a reasoned and true state of capacity to act with regard to human goods.”⁶ In other words, simply having knowledge about what the right thing to do is not enough. Ultimately, *phronesis* is characterized by acting on that knowledge. A leading scholar on the subject explains that, “If I *see* what the situation requires, but am unable to bring myself to act in a manner befitting my understanding, I possess judgment but not *phronesis*.”⁷ Merely knowing what the right thing to do is not *phronesis* unless it is swiftly and intuitively followed by right action.

What is important here is that *phronesis* is not merely “knowledge” as is true with *techne* but describes the good action of a particular kind of person: the *phronimos*. It is “good” action because it is informed by a “regard to human goods.” Regrettably, there is no simple or straightforward way to know what a human good is. We cannot turn to an instruction manual of human goods or take a course on how to act with regard to human goods. Unlike a *technitês* teaching an apprentice, the *phronimos* cannot successfully instruct somehow how to make good-decisions. Because no two decisions can be based on the exact same circumstances, the criteria of a choice to do the right thing are constantly changing. Despite this difficulty, a *phronimos* does not freeze up when a bold move is required, they are not paralyzed by indecision, doubt or fear but are quick on their feet, confidently rising to any occasion and acting toward a good result.

Aristotle, for one, pointed to Pericles, the cool-headed and brilliant savior of Athens during the Peloponnesian War, as a good example of a *phronimos*. However, it is Thucydides, the great historian of that same war, who provided perhaps the best description of a *phronimos* in this passage on the unrivalled military and political leadership of Themistocles:

Indeed, Themistocles was a man who showed an unmistakable natural genius; in this respect he was quite exceptional, and beyond all other deserves our admiration. Without studying a subject in advance or deliberating over it later, but using simply the intelligence that was his by nature, he had the power to reach the right conclusion in matters that have to be settled on the spur of the moment and do not admit of long discussions, and in estimating what was likely to happen, his forecasts of the future were always more reliable than those of others...To sum him up in a few words, it may be said that through force of genius and by rapidity of action this man was supreme at doing precisely the right thing at precisely the right moment.

The word Thucydides used to describe Themistocles’ natural genius is *synesis*— often translated as “practical intelligence”, also a common way to translate *phronesis*.⁸ Suffice it to say, while General Themistocles may have been born with a natural propensity for quick thinking, it was his many experiences on and off the battlefield that gave him the competence to make good decisions and allowed him to become such an admired figure. According to Aristotle, one can only become a *phronimos* through a process of trial and error because good judgment is not innate but a good

habit (*hexis*) acquired through practice.⁹ This is why Aristotle thinks young men may be clever or smart but not wise in practical matters¹⁰—they simply lack the required experience.¹¹

By acting toward and achieving good things repeatedly (and avoiding bad things), a person of good judgment is in time able to rationally understand or perceive the common character or quality of human goods and act accordingly in an ethical manner. Eventually, the *phronimos* can “deliberate about what is good and expedient for himself, not in some particular respect, e.g. about what sorts of thing conduce to health or to strength, but about what sorts of thing conduce to the good life in general.”¹²

The most critical step to acquiring the habit of *phronesis* is following the example of a preexisting *phronimos*.¹³ By way of imitation of these role models, a child or a student will get into the habit of acting in a good and ethical manner. In turn, *phronesis* can only be developed through a life lived in a city filled with good parents, friends, educators and political leaders—the *phronimos* is a reflection of, comes from or out of, the community. For example, while a young child might at first have to be made to eat healthy food (or “habituated” as Aristotle would put it), as they get older they will come to accept and understand the “good” or the virtue of healthy eating. By imitating the temperate acts of their parents, this child will eventually develop a mastery over their passions, appetites and desires.

At first, there may be considerable tension between this virtuous action and, let us say, his excessive appetite. But, with enough practice, this tension will dissipate, the child’s soul will be ordered and the ethical virtue of moderation will help them make good-decisions about eating. Importantly for Aristotle, we should not repress natural inclinations but develop and guide them to good ends. So, a child’s appetite for food or, when they get older, passion for sex are the initial spurs for later self-understanding and development. They work their way through the lower goods associated with health and the body toward higher goods guided by that which is pleasant and the example of a *phronimos* or role model. Through making proper choices, the ethical weakness, immaturity or intemperance that might have instead led them to gluttony or lust later in life are pushed aside. Again, for Aristotle, the experience of satisfying the lower appetites, seeking that which is pleasurable and avoiding that which is painful, was a critical first step toward being able to make good judgments about higher and more important things.¹⁴ What might begin as individual decisions about health, will eventually lead to good decisions about “life in general” that might later be applied to more complicated matters or higher goods such as politics and law. In other words, at a certain point a child will be able to do more than simply mimic the behaviour of the *phronimos*, but will apply the good habit of *phronesis* to the unique circumstances they face in their daily lives, demonstrating their own good judgment and ethical virtue and thus becoming a responsible citizen in their community.

Needless to say, a child who has gluttonous parents and never learns how to take care of his or her own health, family, or household is an unlikely candidate to be a good citizen, political leader, legislator, or ethical exemplar. The problem, as Aristotle saw it, was that many societies had lost this critical connection to the “human goods.” He pointed to the “vulgar decline” of statesmen who are concerned only with the “useful” and “profitable” as well as empire building.¹⁵ Critically, if the *polis* fails to pass down the bases of its *ethos* of the good life to the next generation of citizens, then the constitution of the whole city will become deviant. As a result, the next generation of citizens brought up by that city’s elders, parents and legislators will be unhappy.¹⁶ Arguably, once the link between generations is broken, recovery of “human goods” and “the good life” is difficult if not impossible. Indeed, this is what contemporary “*phronesis*

revivalists” like Gadamer, Arendt, and MacIntyre think has happened to today’s technological society and why they seek to revive the ancient practice of *phronesis*.

In a sense, the *phronimos* serves as the bridge or link between generations. Because they accumulate an understanding of “human goods” in general, they are also able to ensure that the fundamental tenets of the good life are always present, not overturned in the clamor of change. They know “what is the end or aim to which a good life is directed”¹⁷ and “must labour to ensure that his citizens become good men.”¹⁸ They possess an understanding of the *polis* beyond the mere conventions of city life, understanding how to live a good life in general. *Phronetic* leadership requires both a political education (what Aristotle called “political science”) on how politics works in all communities and a practical knowledge of one’s specific community (e.g. its terrain, neighboring communities, the size and make up of its population, and its legislation). Through a combination of larger considerations of politics and law, political education and political experience, the *phronimos* is able to strike a balance between the particular needs of his community and what is good for all communities.¹⁹ The *phronimos* realizes that the particulars of life in the city are always changing or growing and yet the city’s overall tenor remains the same.

IV

With this explanation in hand, we can at least begin to understand how the contemporary revival of the ancient virtue of *phronesis* might help us with our contemporary technological dilemma. Because it includes a consideration of human goods above and beyond mere bodily satisfaction, *phronesis* gives us access to higher virtues by which we might judge what technologies we should allow into our communities and those we should prohibit. Put differently, just because we can produce something that satisfies some need or desire, does not mean that it should be produced. Arguably, with a *phronimos* or a person with good judgment at the helm, we will no longer be entranced by the narrow promise of technology to alleviate our pain or enhance our pleasure, but will instead regulate the satisfaction of these lower goods in subordination to the higher virtues of the good life in general.

Of course, not everyone in the ancient world agreed with Aristotle’s idea that the *phronimos* was the best political leader or that they would be the most able to deliver the good life. Aristotle’s teacher Plato seemed to recommend that the *technitês* would be a far better candidate. Plato appeared to argue that, if a technician were in charge, they would be able to transform the city and its citizens to be precise and predictable in the same way a craftsman makes his crafts. Rather than simply accepting that the thoughts and actions of human beings are unpredictable and impossible to perfectly anticipate, Plato thought that, under the controlled conditions of a technically designed and run *polis*, we could have a guarantee of prosperity and happiness in the same way a craftsman could guarantee the qualities of his crafts. This led Plato to explore the possibilities of what he called “kingly *techne*.” A techno-political rule, he theorized, might allow for the control, stability and dependability that would give a political leader the unwavering ability to direct and mold a city and its citizens in the same way a blacksmith forges horseshoes and weapons. For Plato, rather than the practical and spontaneous decisions of the *phronimos*, the *polis* would be better served by the productive and predictable expertise of the technician.

While this is a theme in many of the Platonic texts, it is on clearest display in *The Statesman*. In this strange and striking dialogue, Plato blurred the roles of the craftsman and the politician, writing not about the infamous philosopher-king of *The Republic* but instead the

possibilities of a craftsman-king practicing a kind of politics comparable to the crafts of carpentry, shepherding, and weaving — a “science of government” that treats citizens like material no different than wood, sheep, or wool. Just as craftsmen transform these basic materials into their crafts, the craftsman-king can transform people and territory into a good and healthy city. Here, *techne* is no longer limited to producing basic external goods but is applied directly to the high art of politics.

Of course, Plato admitted that the job of the craftsman-king is quite a bit more challenging and complicated than that of the ordinary technician. He explained, for instance, that where a carpenter builds with inanimate materials such as wood, a statesman “has a nobler function, which is the management and control of living beings.”²⁰ And, because “living beings” are a far more complex material than wood, the statesman might better be compared to a shepherd that, instead of herding sheep, is a “herdsman of humanity.” But, Plato also conceded that the kingly-technician faces yet a further complication. Where sheep do not generally give advice to the shepherd on how or where they should be herded, human beings have many opinions on how their city should be run and under what rules and laws they wish to be governed. Unfortunately, the citizen-sheep are often too obstinate, under the flawed impression that they know how to run the city better than the shepherd. For Plato, this bedeviling and all too common lack of diffidence to authority was something the shepherd should and could breed out of his flock. Like a weaver of wool, he suggested that the herdsman breed out the unfit and undesirable characteristics found in the city by pairing citizen-sheep of complimentary temperaments (like the woof and warp of a piece of cloth) toward the production of a generation of obedient and agreeable offspring.²¹ While the whole idea that we give politicians this kind of control over our lives may seem abhorrent, Plato saw it as a necessary step toward the production of an orderly and efficient *polis*. And, as the dialogue closes, we are told that this “royal science” which is the “greatest of all sciences” will produce a just city and a happy citizenry.

All told, the ancient Greek political philosophies of Plato and Aristotle present a rivalry between two visions of political rule: i) a kingly *techne* where the city and citizenry are treated like malleable material to be formed and controlled toward predictable ends in the same way a craftsman makes a product or; ii) a *phronetic* rule where politics is guided by an overarching understanding of what makes for a good and happy life. It might be said that today we still face this same choice. If our goal as human beings and citizens is security in the predictable and controllable, then we should embrace the rule of the *technitês*. Indeed, our current drive to understand and manage our bodies and minds through the “crafts” of neuroscience and genetic engineering, suggests that we are not willing to leave anything to chance as we seek a thorough technical control of every aspect of our physical, emotional and psychological selves. As it stands, we seem to have chosen the leadership of the craftsman-king.

Of course, it is not easy to know whether Plato was actually advocating for kingly *techne* in *The Statesman*, advising against it or doing something else entirely. He even admitted that despite the fact it may be for the best it is also highly unlikely that anyone would actually willingly submit to this sort of rule. So, even though there is something terrifyingly attractive about the efficiency of the craftsman-king’s skill at expertly applying a dependable set of procedures toward the production of an excellent city and/or a happy life, the realization that the citizenry must be either fooled or coerced *en masse* into complying to his reign, makes *The Statesman* more of a warning than an endorsement.

And while we would still not today voluntarily submit to a eugenics program that seeks the creation of a compliant citizenry, we do seem to accept the need for psychopharmacological and genetic manipulation. In essence, we are allowing the *technitês* to change our temperaments to conform to a certain standard of physical, emotional, and psychological health. Yet, is this not a very similar thing to what the *phronimos* does? The *phronetic* statesman does not simply facilitate the free realization of any of our goals or satisfaction of any of the passions but necessarily ones he deems as “good.” They seek to influence us to conform to a given standard of physical health, emotional stability and social behaviour, serving as a template for a good and proper way of living. It could be said that both the raw materials of a craftsman and a youthful citizen under the tutelage of a *phronimos* will not develop naturally or independently toward their end states (whether a piece of cloth or a good citizen/statesman). They both require something outside of themselves to move them in that direction.

Still, while there is an interesting similarity between these undertakings, there is also an important difference. To put it in Aristotelian terms, where a technician imposes an “external efficient cause,” the *phronimos* encourages or activates an “internal efficient cause.” To explain, where wood will never on its own accord shape itself into a chair, young men and women will, to some degree, change themselves willingly into good people provided that they are placed in the proper environment. In turn, where the craftsman imposes a form onto his materials, the *phronimos* can expect his “material” to change itself voluntarily to its new form.²²

Incredibly, this parallels an important division Aristotle makes between things by nature and things by artifice. In the *Physics*, Aristotle explains that something is “by nature” only when it has in itself a source for change and staying unchanged.²³ In other words, its source of growth, movement or “efficient cause” is found somewhere within. For example, a tree grows from a seed to become a fully grown tree — the efficient cause of the tree is in itself. While it requires a proper environment for growth, it is still something within that seed (what we might now call DNA) that governs and compels the development of the tree. A pebble will never become an oak no matter the amount of sunlight, rain, and rich soil it is exposed to because it lacks that required internal efficient cause. A shoe or a house, on the other hand, has an “external” efficient cause in a cobbler or house-builder — in the maker and not in the thing made.²⁴ They do not “grow” or form without the imposition of the external agency of the craftsman.

We can conclude, quite reasonably, that trees are natural and shoes and houses are artificial. We can also conclude that things guided by *phronesis* are natural and those by *techne* are artificial. The *phronimos* is an essential part of the “proper environment” (the sun, rain and soil) for the growth of good people, spurring the natural development of young men and women toward their becoming publicly engaged and responsible citizens. Differently, the *technitês*-king attempts to produce or construct good citizens. If we were to submit to kingly *techne*, we would be placed in the same circumstance as the piece of wood waiting for the craftsman to form us into a chair or other product. As citizens of a *techno-polis*, we would never develop our own internal capacities for right, ethical or lawful behavior; never of our own accord will we be able to move toward the final goal of the good life. Just as a piece of wood will never by its own volition start to be more like a chair, we will never by ourselves become good people. Instead, we will require the ubiquitous presence of a hands-on *technitês* forming and shaping us to be happy and satisfied. Like a chronically ill patient, the citizens of the technically derived city will need the external care of a doctor to ensure their health and continual development and well being.

This movement from *phronetic* to technical rule introduces a new and disturbing problem. Aristotle explains that making (*poiesis*) and acting (*praxis*) are different, “For while making has

an end other than itself, action cannot; for good action itself is its end.”²⁵ Where the end of *techne* can “live on” long after it is made by a craftsman, as a horseshoe exists without the presence of a blacksmith, the activity stemming from *phronesis* is always directly linked to the *phronimos*. Where the good action of the *phronimos* cannot exist outside of the presence of a human being, the products of technical knowledge are independent from human life. In turn, technical knowledge can produce artifacts that have negative impacts on human beings, including the maker, and still count as the products of *techne*. We can and have made many products that are clear dangers to life: chemicals, weapons, and other technologies. This raises the possibility that the kind of community produced by technical rule could be dangerous or, at the very least, would not necessarily have to be good. Differently, because it is always linked to the good behaviour of a human being, *phronesis* must always indicate action conducive to human life. From here, we could say that there is no impetus on a technical leader to make a city conducive to the good life. *Phronetic* leadership, however, is by definition directed toward the good life.

But, while this may be true of ordinary *techne*, it may not be true of kingly *techne*. Normally, once the craftsman is finished making a product, the properties of the materials used to make it are once again at bay to the forces of nature; matter restarts its natural movement. Once built, the wood of chair will still rot if left in the same environment as a fallen tree on the forest floor. In other words, the technician does not normally impose a permanent form onto nature. However, in the context of a kingly *techne*, the craftsman remains a part of the product he makes; he is a part of the *polis*. So, where he is normally an “external” cause, in this example he becomes an internal cause. Conceivably, this would allow the techno-*polis* to “grow” in a way similar to a thing by nature, with the ruling craftsman constantly adapting and repairing his product to contingencies and new circumstances in the same way a tree adapts to new growing conditions. The *polis* of the craftsman-king takes on something of an artificial life, under the permanent imposition of an adaptive *techne*, never allowing any of its human material to return to their natural state.

Surprisingly, despite his advocacy of *phronesis*, Aristotle himself considers the possibilities of this kind of city. At one point in the *Politics* he even notes that, “The primary factor necessary, in the equipment (*choregia*) of a state, is the human material.”²⁶ This decidedly technical tone is accentuated all the more by the use of the word *choregia* to describe the “human material.” Translated as equipment in this passage, *choregia* originally referred to a contribution of supplies or costumes given to the chorus of a play by a wealthy citizen. Here it implies that the people of a city are basic material for the city’s production, no different than the wood and nails used by a carpenter.

However, it is important to note that Aristotle uses this term in his discussion of an ideal or imaginary city built from scratch. In this situation, we might consider the population an inert material that could be selected based on certain criteria and molded at will. Similar to Plato’s *Statesman*, Aristotle advises that the “human material” of this ideal *polis* should be selected within a certain size (i.e. population) and be composed of persons of a certain natural endowment or temperament (e.g. intelligence and courage). As it is presented here, the maker of the *polis* can simply choose the amount and kind of people he wants in his city. But, Aristotle being of a practical sort, seems to put this consideration of the “ideal city” to a quick end, deciding in Book VII of the *Politics* that, “It is easy enough to theorize about such matters: it is far less easy to realize one’s theories. We talk about them in terms of our wants; what actually happens depends upon chance.”²⁷ So, while it is good to think about what is ideal, politics is in many ways

governed by what is given to us already.²⁸ Under normal conditions, no political leader can *simply* choose the citizens he is going to lead.

Still, the very fact that he conceives of the ideal city in such technical terms bears further consideration. For Aristotle, the “ideal” is not necessarily something that is out of reach or purely theoretical but instead consists in having all the material conditions of life met as one would wish.²⁹ Under these conditions, it might actually be possible for a statesman to be like a master craftsman who imposes a form onto human material in the same way a carpenter imposes a form onto wood. Just as the carpenter understands how to turn wood into a chair, the legislator molds the natural character of humans into good citizens.³⁰ And, even if fortune gives the statesman these materials “pre-prepared” (with their endowment and temperaments already set), this is really no different than the situation of any craftsman. Aristotle writes, “. . . the art of the statesman does not produce human stock, but counts on its being supplied by nature and proceeds to use her supply, . . . It is not the business of the art of weaving to produce wool, but to use it . . .”³¹ Just as the weaver works with the already given nature of wool and the carpenter with the given nature of wood, the statesman must work with the given nature of the citizenry.

But, there remains a problem with this city. Aristotle also recognizes that “human material” behaves quite differently from the materials of cloth or a chair because it demands a say in the product it is a part of: the city. Imagine if the lumber of a house started instructing the house builder how to build a frame or the costumes of a chorus began to make suggestions to the actors. As we know, humans have many opinions on what is good and right. And, without doubt, this makes the building of a city far more complicated than the construction of a house, chair or blanket. Instead of a craftsman with absolute control, a city requires a leader able to consolidate and direct the plurality of opinions, instructions, and suggestions that exist in the city’s population. Without this tolerance and flexibility, life in the city would be rigid and unable to adapt to the unexpected or unforeseen, nor would it allow for community wide interpretation, discussion and debate of laws.³² With this in mind, the prospect of having a *techne* of human material or kingly *techne* is unlikely.

And yet all of this suggests that, if humans *could* be treated as are the materials of a weaver or a carpenter, the city could be run on precise technical knowledge alone. Expertise over “human material” would require a total effort to anticipate and control the thoughts and actions of every human. While this may be impractical or undesirable, it may also be that Plato and Aristotle both agreed that it was not impossible. Ultimately though, due to the complexity involved, the singularly technical ruler, such as Plato’s weaver of temperaments, is an impractical creature. Rather than his technical knowledge, the activity of the good statesman is exhibited by way of good judgment or *phronesis*.

All of this suggests that the fundamental “problem of technology” is that it treats human beings as mere material to be shape and formed in any which way. This problem seems to be the consequence of the domination of the technical vision of the world. And, for all that has been written above, the revival of *phronesis* seems a potentially effective response. However, it may also be that, because the ethical foundations required for the practice of *phronesis* continue to erode in our increasingly technological society, its revival is more and more unlikely.³³ In turn, we seem destined to live in the second city or *techno-polis* where the craftsmen-king will determine the character of the citizenry rather than the citizenry determining the character of their crafts.

¹ *Nicomachean Ethics* (NE), 1140b20

² Politics (Pol) Book I, Chapter xi, Section 8. Aristotle. *The Politics of Aristotle*. Edited by Ernest Barker. London: Oxford University Press, 1958.

³ Aristotle is clear that we need the products of *techne* in order to live good and full lives (Pol, VII, i, 13) but also writes that "...it is for the sake of the soul that these other things [external goods] are desirable, and should accordingly be desired by every man of good sense — not the soul for the sake of them" (Pol, VII, I, 9).

⁴ Pol, I, ii, 9

⁵ NE, 1140a10

⁶ NE, 1140b20

⁷ Beiner, Ronald. *Political Judgment*. Chicago: The University of Chicago Press, 1983: 74

⁸ It should be noted that Aristotle makes a distinction between *synesis* and *phronesis* explaining that the former describes good advice whereas the latter describes good action (NE 1143a7-10). However, it is clear that Thucydides is using the word to describe Themistocles' "rapidity of action."

⁹ NE, 1103a14ff

¹⁰ NE, 1142a12-21

¹¹ A similar rationale might be used to explain the minimum voting age requirement in today's democracies.

¹² NE, 1140a25

¹³ NE, 1106b36-1107a2

¹⁴ NE, 1113a9-13

¹⁵ Pol, VII, xiv, 15-17

¹⁶ Pol, VII, xiv, 18

¹⁷ Pol, VII, xiv, 8

¹⁸ Pol, VIII, xiv, 8

¹⁹ Pol, IV, i, 7-8

²⁰ 261d

²¹ "Kingly *techne* blends and weaves together; taking on the one hand those whose nature tend rather to courage, which is the stronger element and may regarded as the warp, and on the other hand those which incline to order and gentleness . . . the woof — these, which are naturally opposed, she seeks to bind and weave together . . .(Line, 309)." We are told that, by weaving the temperate with the courageous, vices can be transformed into virtues, curing each side of its deficiencies (Line, 310).

²² In other words, for *phronesis*, the agent of change or the efficient cause is in the material and not from an external source. Differently, in the case of *techne*, the agent of change or efficient cause is from an external source — in the *technitês*, not the product.

²³ *Physics* 192b, 14-15

²⁴ NE 1140a10-15

²⁵ NE 1140b6

²⁶ Pol, VII, iv, 4

²⁷ Pol, VII, xii, 9

²⁸ Furthermore, as he explains later in the *Politics*, we can only “pray that our state should be ideally equipped at all points where fortune is sovereign — as we assume her to be in the sphere of the ‘given’” (VII, xiii, 9). The makeup of the population would likely be included in this sphere of the given rather than the made.

²⁹ Pol, II, i, 1

³⁰ Pol, VII, xiii, 13

³¹ Pol, I, x, 1-2

³² Pol, III, xv, 7

³³ For a discussion of the difficulties associated with the phronesis revival see my “Phronesis, Democracy, and Technology.” *The Canadian Journal of Political Science*. 2004. Volume 37, Number 04. 997-1016.