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Political Science and Paradigms in Medieval Europe

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This article examines the value of paradigmatic uniformity in political science. It argues that although the discipline of political science currently lacks a uniform paradigm, this was not always the case. In late medieval Europe, a model for the study of politics based on the recently retrieved writings of Aristotle dominated the universities and shaped a new science of politics. By examining these medieval Aristotelians, contemporary scholars can see more clearly both the risks and the rewards of a single methodology in the field.

Introduction

Political scientists have often found themselves trying to justify the use of the term “science” to describe our field. Where practitioners of chemistry or biology can take for granted the fact that they are engaged in scientific endeavors, the same question, when raised among political scientists yields an uncomfortable mixture of equivocation, defensive posturing, and navel-gazing. Many (if not most) in the field of political science today seek to be scientific in their approach to the study of politics. In doing so, the natural sciences are often used as a yardstick to measure the progress of our field toward some professional ideal.

This article turns from present disputes over such issues as the proper place of formal theory, experimental design, and statistical analysis in our field to look at our earlier history and ask a related question: Have we ever been a real science? Somewhat surprisingly, the answer to this question can be found in thirteenth- and fourteenth-century Europe. Using the criteria for scientific development laid out in Thomas Kuhn’s *The Structure of Scientific Revolutions* (a favorite among contemporary purveyors of political science as science), I argue that a mature community of political scientists could be found in late medieval Europe. They shared a scientific paradigm and methodology based on their understanding of Aristotle’s *Politics* (newly available in Latin translation in this time period) and dominated the study of politics at the medieval universities.

Judging by the criteria Kuhn developed in his studies of the history of the natural sciences, political science actually reached a state of “maturity” centuries before other fields, such as biology and physics, did the same. I raise this issue, however, not just for the sake of bragging rights. Based on their reading of Kuhn’s work, advocates of various approaches to the study

of politics (behavioralism, rational choice theory, etc.) have called for the adoption of a unifying paradigm as the solution to political science's inferiority complex. By choosing and enforcing a single paradigm for the study of politics, they claim, we can force our field into the final stages of full scientific maturity. I argue that by examining the mature political science community of the late thirteenth and early fourteenth centuries, we can see the advantages and disadvantages of such strict paradigmatic uniformity. A more complete understanding of political science's past can bring us a more fruitful future.

Thomas Kuhn and the History of Science

In his book, *The Structure of Scientific Revolutions*, Thomas Kuhn (1962) offers a description of scientific progress that is at odds with the textbook account of incremental discovery. In Kuhn's view, mature sciences alternate between periods of "normal science" and "revolutions," where the very assumptions of a field are challenged. Each revolution provides a new paradigm (a set of assumptions about the world), through which the work of normal science can begin again. In the period before maturity,¹ multiple paradigms can compete for legitimacy among the scientific community. There are no "rules" for how the process of scientific research should proceed. While this may, at first, appear to provide opportunities for creative exploration, Kuhn argues that it is problematic: "In the absence of a paradigm or some candidate for a paradigm, all the facts that could possibly pertain to the development of a given science seem equally relevant.... In the absence of a reason for seeking some particular form of more recondite information, early fact-gathering is usually restricted to the wealth of data that lie ready to hand." (Kuhn 1962, 15). Research is a random and unfocused process.

Without a shared paradigm, scientists do not know which questions are important. Furthermore, it is difficult for the scientific community to proceed together *as a community*, to relate the work of one scholar to that of another: "different men confronting the same range of phenomena, but not usually all the same particular phenomena, describe and interpret them in different ways." (Kuhn 1962, 17). Kuhn is careful to point out that genuine (and important) scientific discoveries can be made during these phases of competing or non-paradigmatic science. However, since each scholar must

¹ Kuhn implies that a science which has reached maturity may still return to a period of competing paradigms.

start from scratch in justifying his or her basic assumptions, and no commonly accepted framework directs research toward a particular set of questions, it is an inefficient use of scientists' energy.

Kuhn's picture of science in its early stages is disorganized and often lacking in explanatory theory; however things do not usually stay this way. When an individual or a group comes up with a theory than can explain more and attract a greater number of followers, competing theories die out or their adherents are relegated to other fields. New practitioners of the science are socialized into this new "paradigm," and scholarship can proceed without each thinker having to justify his or her assumptions. Research becomes more focused:

The new paradigm implies a new and more rigid definition of the field. Those unwilling or unable to accommodate their work to it must proceed in isolation or attach themselves to some other group.... It is sometimes just its reception of a paradigm that transforms a group previously interested merely in the study of nature into a profession or, at least, a discipline (1962, 19).

Thus, a field becomes a "Science." Those who follow the paradigm are part of the scientific process, and those that do not are forced out of the community.

The type of research undertaken once a group of scientists has accepted a common paradigm is what Thomas Kuhn calls "normal science." Kuhn compares normal science to puzzle-solving. The paradigm dictates what sort of research is to be done and what sort of questions are to be asked:

One of the things a scientific community acquires with a paradigm is a criterion for choosing problems that, while the paradigm is taken for granted, can be assumed to have solutions. To a great extent these are the only problems that the community will admit as scientific or encourage its members to undertake. Other problems, including many that had previously been standard, are rejected as metaphysical, as the concern of another discipline, or sometimes as just too problematic to be worth the time (1962, 37).

The scientific community agrees on what questions are appropriate and what constitutes the aims of their field. This development is key. While the

acceptance of a paradigm generally signals a period of increased progress in a science, it also usually means a drastic narrowing of the field.

Normal scientists not only gravitate toward the puzzles that their paradigm promises a solution to; they actually avoid questions that might challenge the foundations of the paradigm. In many cases, questions or phenomena that do not fit within the boundaries of the paradigm are simply not “seen” at all. Experiments are undertaken to show how nature agrees with the paradigm, not to test the validity of its assumptions. Under the conditions of normal science, according to Kuhn, “To desert the paradigm is to cease practicing the science it defines” (1962, 34).

Periods of normal science do not, however, last forever. When anomalies are discovered that challenge that assumptions of the paradigm, the first response is to try to explain them away from within the existing paradigm. If this does not succeed, scholars will begin tinkering with the paradigm, making minor adjustments to its premises, as was seen in Ptolemaic astronomy in the sixteenth century. Scientists will struggle to preserve the paradigm until anomaly and confusion become so great that the field enters a period of crisis. As Kuhn elaborates, “All crises begin with the blurring of a paradigm and the consequent loosening of the rules for normal research. In this respect research during crisis very much resembles research during the pre-paradigm period...” (1962, 84). Sometimes a crisis is handled satisfactorily by normal science; sometimes a problem is simply set aside or ignored. On some occasions, however, crisis leads to the proposal of an entirely new paradigm. This is what Kuhn deems a “revolution.” Scholars who do not buy into the new paradigm are excluded from the science, which has itself been redefined. Normal science then begins again with a new set of assumptions and a new focus for its investigations (1962, 85).

Kuhn’s approach to the history of science is distinctly different from the incremental growth model put forward by those such as Karl Popper (2002) and Carl Hempel (1996). There is no sense of steady progress toward Truth; periods of simple puzzle-solving alternate with revolutions that redefine contours of the science itself. Science proceeds within the boundaries of its paradigm. Observations can only be made through the lens of theory. There are no universal objective criteria for proper scientific method. Each community of scholars sets its own rules for how experiments should be preformed and what questions should be investigated, in accordance with the current paradigm. The paradigm provides commonly accepted assumptions within which science can progress but also limits the types of

investigations considered acceptable. The paradigm, in effect, makes the science.

Aristotelianism as a Political Paradigm

Several scholars have attempted to examine whether Kuhn's theories are applicable to the social sciences and to political science in particular.² Given the generally positive conclusions they reach about the usefulness of this theory in examining social sciences, this paper will now turn to investigate a specific period in which the field of politics did possess a unified paradigm, in keeping with Kuhn's description of mature sciences. Medieval Aristotelian political thinkers meet all Kuhn's major criteria for a mature scientific community. Medieval scholars have long struggled to explain the sudden adoption of Aristotelian language and (parts of) Aristotelian philosophy by late medieval thinkers. Sheldon Wolin (1968) has already proposed that if political scientists adopted a Kuhnian framework, Aristotelianism should be considered one of the paradigms in its history. This is an approach that has been neglected among medievalists. Medieval Aristotelianism fits the criteria Kuhn lays out for a mature science. Its adherents shared a set of basic assumptions about the world, a language system that facilitated scholarly communication, and agreement on what questions were appropriate subjects for political inquiry (Sullivan 2011). The medieval Aristotelian framework, however, is not straight Aristotelianism, but a uniquely medieval conglomeration including Christian, Germanic, and Roman elements. However, the reintroduction of Aristotle in the late thirteenth century provided the spark that brought these ingredients together into a coherent research agenda in politics.

The clearest connection between the various Aristotelian political writers is their frequent citation of Aristotle and use of Aristotelian political language. Antony Black (1991; 1992) has already documented the explosion in Aristotelian political language in the late thirteenth and early fourteenth centuries and pointed out that using Aristotelian language did not necessarily limit what any given author could say. However, this language did provide political theorists with their own set of technical jargon. Medieval thinkers were immersed in Aristotle during their training period (most notably at the University of Paris) (de Wulf 1918; de Leemans 2010). The vocabulary they thereby acquired could be utilized, and understood, by thinkers from a wide variety of ideological positions. Specifically, medieval

² See Ball 1976, Ball 1987, Dryzek 1986, Schatz and Schatz 2003, Stephens 1973, and Wolin 1968.

Aristotelians adopted Aristotle's six-fold classification of regimes and the definitions for the types of constitutions contained therein. Brunetto Latini employed this basic classification scheme in the mid-thirteenth century:

There are three types of lordship: one of kings, the second of men, and the third of communes, which is best of all. Each type has its opposite, for the king's lordship has its opposite in the lordship of the tyrant, who is interested in his own profit alone.... Similarly, when good men and great men cease doing what is good, with the intent of not letting the lordship leave their family...then their lordship changes into the lordship of the commune. The lordship of the commune is corrupted when good customs and good and praiseworthy law are abandoned (Brunetto Latini [c. 1260] 1993, 179).

This scheme appears again in Marsiglio of Padua's *Defensor Pacis*:

Royal monarchy is a tempered principate in which what dominates is a single man for the common advantage and according to the will and consent of those subject. Whereas, tyranny, which is its opposite, is a flawed principate in which what dominates is a single man to his own advantage and beyond the will of those subject. Aristocracy is a tempered principate in which the notables alone dominate in accordance with the will or consent of those subject and the common advantage. Oligarchy, its opposite, is a flawed principate in which certain of the richer or more powerful dominate to their own advantage...Polity...implies a certain specific type of tempered principate in which every citizen has some share in the principate or councilor function, in turn and according to his rank, means, or condition, and also for the common advantage...Whereas democracy, its opposite, is a principate in which the plebs or multitude of the poor has established the principate and rules by itself beyond the will or consent of the other citizens (Marsiglio of Padua [1324] 2005, 41-42).

By the time Ptolemy of Lucca was writing in the early fourteenth century, the six-fold Aristotelian scheme was so common that he had to explain his decision not to use it as the basis of his argument: "Although in Book 5 of the *Politics* Aristotle supposes there are many forms of rule, which I have already described and will discuss again, elsewhere in the same work he

supposes there are only two, political and despotic" (Ptolemy of Lucca [c. 1300] 1997, 120).

Medieval Aristotelians also adopted the Aristotelian virtue language of the *Nicomachean Ethics*. Dante explains Aristotle approach to virtue in the *Convivio*: "Each of these virtues has two related enemies, that is, vices, one through excess and one through deficit. These virtues constitute the mean between them, and they spring from a single source, namely from our habit of good choice" (Dante [1306] 1990, 200). The idea of virtue arising from the mean also appears in Brunetto Latini's *Book of the Treasure* as well, where he uses just pricing as an illustration (Brunetto Latini [c. 1260] 1993, 168) and in Christine's de Pizan's description of justice as "render[ing] to each his due" (Christine de Pizan [1406] 1994, 35). This political jargon served to both facilitate scholarly discourse and identify its users to each other as members of the same community of political scientists.

In addition to political terminology, Aristotle provided his medieval readers with a ready supply of historical *exempla* that would be common knowledge among the community of political scientists. For example, anyone who had carefully read Aristotle would recognize Lycurgus as an example of a foolish ruler (Ptolemy of Lucca [c. 1300] 1997, 133). Citations of such passages could provide authoritative illustrations without forcing authors to take the potentially politically dangerous step of commenting directly on current political situations. (The Bible could be put to similar use.) Like Aristotle's political terminology, these examples both acted as commonly recognized shorthand that political theorists would all understand and identified the writers as a correctly socialized student of politics.

A paradigm, however, is more than just a language system. These political theorists also shared many basic assumptions about the world. Some came from their reading of Aristotle: the purpose of the political community is living well (Dante [1308] 1996, *Monarchy*, 5-11; Marsiglio of Padua [1324] 2005, 18; Ptolemy of Lucca [c. 1300] 1997, 222-25), human knowledge can be divided into two categories: practical and theoretical (Brunetto Latini [c. 1260] 1993, 3-4; Dante [1306] 1990, *Convio*, 200-01), democracy is a corrupt regime (Marsiglio of Padua [1324] 2005, 42; Thomas Aquinas, *On Kingship*, 64 in Ptolemy of Lucca [c. 1300] 1997), etc. Other assumptions grew out of their common Christian religious beliefs: God will punish sinners in the afterlife, men and women have free will, etc. Beliefs such as these did not need to be justified in political works; thus, they are

rarely explicitly stated. They could simply be taken for granted. Furthermore, any thinker who openly disagreed with one of these propositions would, at the very least, not be taken seriously by his or her peers, at worst, be subject to charges of heresy.

The ties between medieval Aristotelian thinkers do not stop here. As members of a scientific paradigm, these political thinkers all agreed upon the proper goal for political inquiry: determining the best sort of political regime. The centrality of this particular research question became a hallmark of medieval Aristotelian political inquiry. Maurizio Viroli recognizes this search for the best form of government as a key characteristic of political thought after the dissemination of Aristotle in the West, though his primary interest lies in later European thought:

The rediscovery of the *Politics* helped the students to consider politics not only as the art of ruling the city according to reason and justice but also as the science of the city in general... The focus of political discourse was no longer the ruler but rather the constitution and the collective life of the city. Political inquiry shifted from the duties and qualities of the political man to the assessment of the comparative merits of political regimes (Viroli 1992, 33).

Thus, the translation of the *Ethics*, and to an even greater extent, the *Politics* fundamentally reshaped how medieval political thinkers approached their work. Political writers seeking to answer Aristotle's main political question—What is the best type of regime?—and employing his framework of classification, in more or less modified ways, can provide scholars with yet another definition of a limited 'medieval Aristotelianism' (Sullivan 2011).

As mentioned above, it is the determination to answer the same question and not any particular argumentative position that leads these thinkers into a community of learning. Thomas Kuhn meditated at length about the definition of the scientific community as a circumscribed community of learning. When discussing the relationship between his notion of 'paradigms' and the structure of the scientific community, he stated, "Having isolated an individual specialists' group, I would next ask what its members shared that enabled them to solve puzzles and that accounted for their *relative unanimity in problem-choice* and in the evaluation of problem-solutions." (Kuhn 1970, 271; see also Hoyningen-Huene 1993, 160-62). This unanimity in problem-choice can be seen throughout the medieval Aristotelian corpus, despite the great variation in the solutions provided. For

example, Ptolemy of Lucca, following the Aristotelian framework for politics, argued at length for the superiority of a Christian republic, modeled for the most part on republican Rome. Thomas Aquinas's unfinished treatise, *On Kingship*, argues for the superiority of royal government over democratic or republican forms. Dante Alighieri, on the other hand, argues that temporal peace can only be achieved when all authority has been invested in a single world emperor. In *Dictio I* of the *Defensor Pacis*, Marisiglio of Padua outlines a system for urban government with strong elements of popular participation. What these thinkers have in common, other than their reliance on Aristotelian political language, is an agreement on which question they must answer. All of their treatises are devoted to determining which type of constitution is best. This is remarkable because prior to the reintroduction of Aristotelian political philosophy in the West, no thinkers were really asking this question. Although men like John of Salisbury were writing carefully considered political tracts prior to the mid-thirteenth century, the basic form of government they were writing about (in John's case, kingship) was basically taken for granted. By the end of the thirteenth century, even a monarchical treatise, such as *On Kingship*, had to explain, not just how to be a good king, but why kingship should be the ideal government at all.

Thus, the Aristotelian paradigm served all the major functions outlined by Kuhn. Medieval Aristotelians shared basic assumptions about the political world. They had a technical language system allowing easy communication among scholars. Above all, medieval Aristotelians agreed on the primary aim of political inquiry: determining which type of constitution is best. This Aristotelian framework, adopted by the end of the thirteenth century, was reinforced through the training at medieval universities, which had adopted Aristotle's *Politics* as their primary political text. While earlier political thinkers, such as Thomas Aquinas, had to fight for the acceptability of teaching Aristotle, later medieval theorists could take basic Aristotelian principles for granted. New generations of political scientists were socialized within the medieval Aristotelian paradigm (see Sullivan 2011).

Scientific paradigms become dominant when a critical mass of followers unites behind them. Once accepted, the paradigm is then enforced from within the field. There is evidence that this was the case with medieval Aristotelianism. As was already mentioned, Aristotle's political and social works had become standard university texts. Aristotle's authority was almost unquestionable. Political thinkers who disagreed with each other and with Aristotle all still cite the Philosopher in their work. Disagreements with Aristotle were handled in a variety of ways. One could, either through guile

or actual ignorance, misrepresent Aristotle so as to make him agree with the argument. Some writers, such as Marsiglio of Padua, very deliberately cited the positions Aristotle was arguing against as his own (Marsiglio of Padua [1324] 2005, 69-71; see also Sullivan 2010). Others scan the Aristotelian corpus for passages from nonpolitical works that could be interpreted as supporting a political viewpoint, as when Dante cites the *Metaphysics* to argue for a single world ruler (Dante [1308] 1996, *Monarchy*, 11). Some, such as Ptolemy of Lucca, simply promise to explain away the contradiction later and then never do (Ptolemy of Lucca [c. 1300] 1997, 120). Some scholars, such as James Blythe, attribute these misuses of Aristotle as the result of simple ignorance or confusion due to Moerbeke's overly literal translation; however, this interpretation does not give medieval thinkers enough credit. While medievals may have occasionally misunderstood Aristotle's text, there are also many clear cases of manipulation (Blythe 2002; Nederman and Sullivan 2008).

In some instances, medieval thinkers were just taking advantage of Aristotle's authority to add legitimacy to their own argument. I would also contend, however, that at least superficial adherence to Aristotelian principles was necessary to be accepted as a genuine political scientist. Although some of Aristotle's theses, the eternity of the universe, for example, were disregarded by medieval thinkers, others, such as the six-fold classification of the good and corrupt forms of government, were almost required political dogma. Those who disagreed with them had to dissemble about their own ideas or manipulate Aristotle's text to minimize any appearance of disagreement. So while the formal institutions of scientific enforcement were only partially established by the fourteenth century, adherence to the medieval Aristotelian paradigm was still being socially enforced. Thinkers had to conform (at least on the surface) or risk exclusion from the community.

Paradigms and Conformity in Political Science

What significance does the medieval Aristotelian political science community hold for modern practitioners of our field? The first point is that whatever struggles or conflicts political science may be going through, they are not the result of it simply being "too young" of a science. Scholars of politics in the late Middle Ages had formed a mature scientific community. They possessed a technical language, set of shared assumptions about politics and methodological uniformity. Political science existed as a science prior to the dawn of the Renaissance.

The second point, and the more complex of the two, is that we, as a field, need to be aware of both the costs and the benefits of paradigmatic conformity. When examining the Aristotelian political scientists of the late Middle Ages, one can see many of the benefits that Kuhn predicts for a mature science. The use of a shared technical language and basic assumptions about political life aided communication between scholars. The study of politics began to receive more attention and was treated as a distinct and worthy subject in its own right, not just a subfield of moral philosophy and history. Yet, with all this professional progress, one does not really see the growth of cumulative knowledge that Kuhn's theory would lead one to expect. Instead of each political thinker building on the work of those who came before him, the medieval Aristotelians provided numerous answers to the same puzzle- What is the best type of regime? In this way, medieval political science seems to have stalled once it reached the stage of normal science. It was not until thinkers broke away from the traditional Aristotelian paradigm with the start of the Renaissance that political science began to move forward again.

I propose that one of the primary reasons for this halt was that the framework for political science provided by the medieval Aristotelian paradigm was too narrow. Since everyone was focused on one problem and one way of approaching politics, once this first puzzle had been addressed, there was no clear next step to move on to. Instead, scholars simply repeated the initial puzzle. The result is multiple treatises providing competing answers to the same problem. This is not a flaw stemming from Aristotle's work itself. The *Politics* proceeds from discussing what constitution is best to other questions, such as which is the best practical constitution, and how can an imperfect regime be brought closer to the ideal. The problem lay in the fact that the medieval political scientists held too rigid a view of what it meant to do political science. They were focused on a single approach and single type of question, which, in the long run, may have stifled their ability to apply Aristotelian assumptions about politics to other pressing political questions. By the Renaissance, Aristotelianism had become synonymous with dusty and typically fruitless academic debate. Political science did not resume a fruitful course until thinkers began to abandon the Aristotelian methodology in order to explore new topics.³ The paradigm had, in effect, become a straightjacket.

³ I would argue that Marsilius of Padua did this to some extent in the second dictio of the *Defensor Pacis*. Machiavelli completed the break with *The Prince*.

Most contemporary political scientists are well aware of the drawbacks of working in a field that lacks a unified paradigm. Work done within one research agenda does not necessarily translate well to those working in other frameworks. This can make it more difficult for scholars to work together on a project. Furthermore, energy is often wasted defending one's core assumptions and research methodology. Enforcing a single research paradigm for the field could alleviate these ailments, as it did for the medieval Aristotelians. At the same time, there are also drawbacks to enforced conformity (Walker 2010). As Kuhn (1962) argues, paradigms often dictate which questions scholars will address; those that do not lend themselves to the research techniques of the dominant paradigm are either ignored or considered to be outside the domain of the field.

In a creative and persuasive article, Schatz and Schatz (2003) document how the dominance of evidence-based medicine (medical research relying solely on the results of controlled experiments) has left many younger practitioners with an impoverished knowledge base. Although originally intended to ensure more rigorous tests of medical treatments, evidence-based medicine (EBM) became so dominant within its field that evidence gathered from clinical observation is no longer considered valid by many researchers. The result is that doctors often have *less* information to draw upon when making diagnoses and suggesting treatments. I argue that the introduction of Aristotle in the thirteenth century had a similar effect on political scholarship. Although it initially led to an outpouring of more rationally justified and empirically based studies of political order, by the fifteenth and sixteenth centuries, scholasticism had become synonymous with overly narrow, overly technical scholarship on such minutiae as the apocryphal "How many angels can dance on the head of a pin?"

While paradigms can facilitate scientific productivity, they can also contribute to an intellectual laziness, encouraging scholars to focus on puzzles (questions which clearly have an answer) rather than problems (questions which truly *need* an answer, even if it must be an imperfect one). The narrowness of the Aristotelian research agenda was not a necessary consequence of the adoption of a single paradigm. Yet, as Schatz and Schatz (2003) illustrated, it is not an entirely uncommon one. Paradigms, by their nature, restrict the appropriate subjects for scientific investigation. There is an inherent danger that they will restrict them too much, leading to a stifling of research. Contemporary political scientists do not want to find themselves contemplating how many rational actors can dance on the head of a pin.

Those who are reluctant to embrace Kuhn's model of scientific advancement or the claims of modern political scientists who believe they have found our path to "maturity", of which there are many, are likely to see the medieval Aristotelians as a cautionary tale, rejoicing in their eventual demise. Those political scientists who long for a more orderly and scientific discipline will point out that great strides were made in political scholarship under the Aristotelian paradigm. It only became unproductive after several decades of fruitful research. Both camps could benefit from a closer study of what political science looked like under a strictly enforced paradigm in the thirteenth and fourteenth centuries.

Perhaps the better approach would be that suggested by Imre Lakatos. Lakatos (1970) argues that multiple "research programs" (his preferred term for Kuhn's paradigm) should be allowed to thrive simultaneously. Different scholars can thereby pursue radically different paths of investigation within the same science. Although a Lakatosian model of science is not as neat and trim as the single paradigm of the Kuhnian system, it does allow for more flexibility. If one paradigm stagnates, it is less of a disaster for the field. Other mature programs are already in place and working on other problems. Revolutions are less earth-shaking.

If political science were to accept a single dominant paradigm in a Kuhnian system, we would have to be aware of the dangers. While it is normal for one's research techniques to dictate which questions one finds most interesting, we should also be cognizant that defining the field too narrowly can cause scientific progress to stagnate. Important research questions are often ignored if they do not fit neatly into the dominant methodology. A successful paradigm must be either broad enough or flexible enough to deal with whatever important political questions may arise. The mere presence of a universally accepted paradigm in political science will not solve all our problems, and the adoption of an ill-fitting paradigm could very well worsen them. Given the mixed success of the medieval Aristotelian paradigm, a multiparadigmatic science, along the lines of Lakatos's model might be more fitting for the field.

Conclusion

Thomas Kuhn's sociologically based approach to the history of science provides a fruitful lens through which to view medieval Aristotelianism. Science, as Kuhn describes it, is not a gradual accumulation of knowledge, but rather sporadic bursts of revolutionary thinking separated by periods of

normal science or puzzle-solving. When this model of science is applied to the study of politics, political science no longer appears quite so “young” in comparison with the natural sciences. Medieval Aristotelianism can thus be viewed as one of the paradigms in the history of the study of politics. Its adherents shared technical language, basic assumptions about the political world, and a fundamental agreement on problem-choice. Political thinkers could not openly challenge the authority of Aristotle for fear of exclusion from the intellectual community.

Historians of political thought, such as Maurizio Viroli, have already noted that the translation of the *Nicomachean Ethics* and *Politics* in the late thirteenth century preceded an explosion of scholarly interest in politics. Focus shifted from the virtues of the ruler to “the science of the city” (Viroli 1992, 33). Furthermore, a greater number of treatises became dedicated solely to the subject of politics, and particularly to constitutional arrangements. As Kuhn argued, it is often the adoption of a paradigm that solidifies a group of scholars into a scientific field. The reception of Aristotle seems to have done just that in the Middle Ages.

However, the unity found during the period of Aristotelian domination of the study of politics did not come without a price. In the long run, the paradigm may have provided too narrow of a definition of political science to allow for sustained progress. Modern political scientists concerned with the state of the discipline could benefit from a better understanding of how political science worked when it did share a single paradigm for the study of politics. Many of the benefits predicted by Kuhn did take place for the medieval Aristotelians, and a sharp increase in the serious study of politics can be seen in this period. However, one can also see how enforcing a paradigm too rigidly can, in the long run, lead research to stagnate. Going into the future, political scientists must weigh the inefficiencies of the current pluralist system against the potential dangers of a more narrowly defined science under a uniform paradigm. In the end, the chaos of competing paradigms is a lesser evil than an overly restrictive research agenda.

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