Introduction

SPENCER JOHNSTON AND HENRIK LAGERLUND

On October 13, 1438 at the University of St. Andrews, what should have been a routine faculty meeting to approve textbooks for the coming year instead (as faculty meetings are sometimes wont to do) became a sharp disagreement over the choice of logic textbook and of correct procedure.[1] The disagreement was over whether the views of Albert the Great and Peter of Spain should be allowed to be taught, or only those of John Buridan. In practice, this should have been a routine discussion, as this amounted to little more than a reaffirmation of a previous decision (indeed one with the same wording) adopted in February 1418. The majority of the masters favored teaching Buridan's views, and, by extension, a nominalist perspective, while a minority of the masters sought to allow the teaching of the logical views of Albert and Peter. One of them, John de Camera, asked that a public record of the majority decision be made (perhaps as a safeguard against future objections from the minority), which in turn led to John Aylmer (or Athilmer) appealing to the university as well as a second official record being taken. Finally, John de Camera asked for a public record of this appeal, claiming that it violated the 1424 assertion of Faculty self-determination.[2] This in turn was eventually elevated to chancellor (and founder) of the University of St. Andrews, Bishop Henry Wardlaw, who in turn dispatched the Bishop of Orkney to help settle the issues raised. It was eventually decided that "the doctrines of Albert or of any other philosopher who was orthodox and free from error should for the time being be free."[3]

As Baxter observes, what we see here is an instance of the very sharp debates between realism and nominalism that divided many universities of the period across Europe. It is also important to note how central John Buridan was to the nominalist position. Indeed, here and elsewhere, the desire to teach Buridan's works served as one way of identifying oneself as belonging to the "nominalist camp." The standard picture that one finds is that, while William Ockham was an innovator and pioneer of fourteenth-century nominalism, it is Buridan's works that made nominalism a working theory. While there are important and subtle differences between the views of Ockham and Buridan, it was Buridan's work that transformed a controversial and polarizing theory into a framework that could serve as the basis for a distinctive approach to logic, metaphysics,

and natural philosophy. It also served as the basis of logic textbooks that made nominalist views accessible to students.

This is not to say that Buridan was simply following Ockham. As we can see in a number of places, Buridan opposed views associated with Ockham, even quashing some of them while he was rector. Buridan's works in logic, natural philosophy, and ethics were published and written about long after his death. Buridan's writings proved influential for many authors who came after him. Indeed, in the case of some authors (e.g. Albert of Saxony), Buridan's shadow was long enough that it was difficult see the originality of these authors without careful examination.[4]

We know very little about Buridan's life.[5] He was born around 1300 in the historical region of Picardy (now part of Hauts-de-France) in northern France. He studied at Paris University and became a master of arts and received his license to teach in the 1320s. He was the rector of Paris University twice and is last seen in the records of the university in the late 1350s. He was probably dead by 1361. The main anomaly with Buridan's life and career is that he remained an arts master throughout his life and had an unusually long career as a teacher. The norm was otherwise to go on to some of the other Faculties and receive a doctorate in theology or law. Buridan's long teaching career meant that he taught most of the important and influential people coming through the university. This accounts for some of his extraordinary influence on universities across Europe.

His writings are all, except a few, in the form of commentaries either of Aristotle's works or on some other authoritative text.[6] They are clearly based on his teaching at the arts faculty in Paris, but they always have a clear distance from the original works of which they are a commentaries. The commentary genre was important in the Middle Ages, but it clearly has its limits if you aim to do something fully new. There is a tension in Buridan's works throughout between Aristotelian views and his own rethinking of them. He is clearly working hard to present very original and new ideas in an old limiting format.

Buridan's contributions to intellectual thought were wide ranging and his work made a long-lasting impact on Western thought across a number of areas. While he is not as often recognized as other great medieval authors, his intellectual achievements are just as striking. Early studies on Buridan's natural philosophy (which are critically discussed in a number of essays in this volume) saw in Buridan's writings arguments and ideas that would move physics away from an Aristotelain theory of motion and clear the way for a Newtonian one. On the topic of logic, a subject that fascinated many authors in the period, Buridan's name deserves to be ranked among the very best logicians in the medieval period. However, Buridan's writings cover topics much broader than natural philosophy, logic, and ontology. His writings on ethics and on biology contain much of interest, even if the secondary literature on this topic is not as extensive as it is on, for example, Buridan's natural philosophy.

Interest in Buridan's writings has not been purely driven by his historical importance. Buridan's logical ability and his philosophical insights have been noted by his modern translators and readers for a while. In particular, seminal papers in logic such as Prior's "The Possibly-True and the Possible" (1969) have drawn on insights from Buridan's modal logic, as has modern work exploring solutions to the liar's paradox.[7]

An observation about some of the changes and developments that we have seen in the recent scholarship of Buridan may be in order here. As one looks at the twentieth- and twenty-first-century scholarship of Buridan over time a number of changes are striking. Initially, Buridan was regarded as a logician and a metaphysician on the one hand, and a key figure in the history of physics on the other. These aspects of Buridan's thought are still a lively and vibrant area of scholarship and debate. However, as some of the essays in this volume will exemplify, there are other key aspects of Buridan's works that are just as philosophically rich and intellectual stimulating as his work in logic and metaphysics. Buridan's ethical writings, his philosophy of mind, as well as his natural scientific treatises outside of motion, are all rich, careful, and worthy of close attention. What has led to this growing awareness of other areas of Buridan's thought? The answer to this is multifaceted, and probably says as much about our present-day philosophical interests as it does about Buridan. However, one aspect that we would draw attention to is the growing corpus of reliable critical editions of Buridan's work, and the careful and often thankless work carried out by those who make the works of authors like Buridan available to scholars lacking paleographic training. These efforts have been essential to many recent discoveries in Buridan scholarship.

One area where Buridan's originality has only begun to be apprechiated by scholarship is in epistemology and his highly original anti-skepticism (this is alluded to in Henrik Lagerlund's contribution). Buridan reshapes the medieval view of knowledge into something much closely resembeling a modern concept. He also manages to realize that fallibilism can be used as an anti-skeptical argument, which is not seen in philosophy until the twentieth century.

In his contribution to this volume, Jack Zupko writes about Buridan's life and career as well as about his philosophical contributions and writings. He also includes a list of Buridan's writings, including modern editions and translations into English. In the remaining parts of this introduction, we will present the contributions in this volume. It will become evident throughout this volume that Buridan presents new and original views on a number of areas of philosophy. He truly belongs among the greats of Western philosophy.

0.1 Contributed Essays

Buridan contributed to all areas of philosophy as it was conceived in the fourteenth century. He is among modern scholars most known for his

contribution to logic and natural philosophy. In this volume we have included three essays devoted to different aspects of his logic. They cover his formal logic (Paul Thom), his view on paradoxes or *sophismata*, as it was called in the Middle Ages (Stephen Read), and his view on modality and time in logic (Spencer Johnston). Other areas covered in this volume are Buridan's contributions to semantics and epistemology (Gyula Klima and Henrik Lagerlund), metaphysics (Paul J. J. M. Bakker), natural philosophy (Cecilia Trifogli and Chiara Beneduce), moral psychology (Bonnie Kent), and moral philosophy (Joseph Stenberg).

Buridan's writings on logic show, as has been noted by many, considerable novelty and originality in a number of areas. Paul Thom, in his essay in this volume, "Principles in Buridan's Logic," argues for the centrality of a small number of semantic principles that underpin Buridan's analysis of logical consequence in his *Treatise on Consequences*. Other interpreters, like Hubert Hubien, the editor of the *Treatise*, gave comparatively little focus to these semantic principles,[8] focusing instead on the role of deduction in this work. Thom, on the other hand, argues for the importance of these semantic principles. He goes on to explore how these principles can be used to analyze the logical inferences that hold between a wide range of propositions, including categorical, temporal, and modal propositions.

The role of modal propositions and their relationship to other kinds of propositions is the focus of Johnston's essay, which traces Buridan's thought about temporal and modal propositions across some of Buridan's key logical texts. He argues that Buridan clearly develops his view over time and seems more in line with Aristotle in the beginning of his career, but clearly expands and complicates his view in later works. This seems partly to do with him coming to know the works of Duns Scotus on modality.

Another important aspect of logic that Buridan contributed to was the treatment of *sophismata*. *Sophismata*, it should be recalled, are various kinds of "tricky" or "problematic" propositions that require analysis in some way. These texts often include discussions of paradoxical propositions, such as the liar sentence, but also include much more. Indeed, Buridan was so interested in *sophismata* that he appears to have included an appendix to his *Summulae de dialectica*, the *Summulae de practica sophismatum* which, as Read observes in his contribution, consists of "what amounted to a far from elementary introduction to logic by way of the analysis of sophisms." In his essay, Read introduces the logical principles used in Buridan's treatment of *Summulae de practica sophismatum* before discussing Buridan's treatment of insolubles.

Another area that has drawn interest from scholars is Buridan's semantics. He developed a new semantics inspired by William Ockham. In his essay, Gyula Klima explores the ways in which Buridan's nominalist semantics "changed the rules of the game" in nearly all fields of medieval philosophy. By contrasting Buridan's new semantics with the older, "semantics-driven

mereology" favored by Thomas Aquinas, he looks at the differences and diverse semantic intuitions embodied with the view as well as some logical and historical evaluation of these matters.

Buridan's semantics as presented by Klima also sets the background to Buridan's approach to epistemology. Buridan develops a completely new account of knowledge that is primarily motivated by divine deception skepticism, which had emerged in the early fourteenth century. In his essay, Henrik Lagerlund looks at Buridan's semantics and his theory of knowledge and asks what kind of theories they are. He argues that both must be understood as internalist and not externalist as they have traditionally been interpreted.

Buridan is also regularly mentioned as a key figure in the history of natural philosophy and of science.[9] According to Pierre Duhem and Anneliese Maier, Buridan plays a key role in the transition from an Aristotelian conception of motion to a Newtonian one. According to their analysis, it is Buridan's development and circulation of the *impetus* theory that provides a plausible alternative to the more problematic theory of *antiperistasis* developed by Aristotle. On the view advanced by Duhem and Maier, Buridan was an important figure in the transition from Aristotelian mechanics to Newtonian mechanics. It turns out that Buridan's role in this transition is far more complicated and nuanced than the theory of Duhem and Maier suggests, and a lot of work has been done recently to make their picture more nuanced.[10]

One aspect of Buridan's rejection of Aristotelian physics and his novel approach to nature is his view of final causality. Buridan discusses this issue in two questions in the Commentary on Book II of Aristotle's *Physics*. In her essay, Cecilia Trifogli argues that the most striking and original aspect of Buridan's discussion is his rejection of Aristotle's view of final causality. This, Trifogli goes on to argue, has important implications for an Aristotelian account of both finality in nature and the role of finality in the actions of agents. She then explores the account of finality that Buridan would put in place of the received Aristotelian one. On her reading, Buridan does reject Aristotle's view, but he is not ready to reject finality altogether.

As part of Buridan's rethinking of nature toward a more mechanistic account it becomes more and more difficult to uphold the traditional Aristotelian distinction between nature and art. According to Aristotle, there is a sharp distinction between natural things and things made by us humans. Paul J. J. M. Bakker focuses on this important aspect of Buridan's ontology, namely the status of artificial objects (artifacts) as found in Buridan's various works on physics. Bakker's essay explores a number of important texts that develop Buridan's view of what an artifact is, discussing how artifacts can be distinguished from natural things even if they are not "really distinct" (*realiter distincta*), and how Buridan understands the relationship between his views and other authors. The text ends with two appendices. The first, Appendix A, contains four extended redactions of Buridan's Commentary on Aristotle's

Physics, II.1 192b9–21 and the second, Appendix B, contains a transcription of questions II.1–3 of the *Quaestiones accurtatae* (a paraphrase of Buridan's *ultima lectura* on the *Physics*, made by a later generation of scholars for teaching purposes).

Even though Buridan's contributions to physics are well known, his approach to biology is almost unstudied. In her essay, Chiara Beneduce focuses on this important aspect of Buridan's natural philosophy. Her essay deals with Buridan's commentary on Pseudo-Albert the Great's *De secretis mulierum*. It explores Buridan's views on human generation, with particular focus on Buridan's views about the generative aspects of female physiology, a topic that has never been studied before.

The final aspect of Buridan's thought considered in this volume is his treatment of moral philosophy and moral psychology. While Buridan's *Summulae de dialectica* became a standard textbook for nominalist logic, his *Questions on the Ten Books of Aristotle's Nicomachean Ethics* also served as a standard reference for nominalist treatments of moral philosophy. Its importance as a text was enduring, as it enjoyed considerable success, with editions of the work occurring through 1637. In her essay, Bonnie Kent treats the important role that the influence of the thought of Seneca the Younger has on Buridan by using the value of emotions as a case study. Kent argues that Buridan's use of Seneca is more subtle and careful than previously noted, as well as arguing that Buridan has a more positive and nuanced view on the value of emotions than is commonly held in the modern secondary literature.

In his essay, Joseph Stenberg aims to situate Buridan's place within what he calls Ethical Aristotelianism and argues that Buridan develops a unique and distinctive account of personal perfectionism about happiness. He concludes by suggesting that in some regards Buridan's project is one that modern philosophers would recognize.

Notes

1 What follows here is based on Baxter 1955, augmented by extremely helpful observations made by Mark Thacker and Stephen Read, to whom the authors are very much indebted.
2 The exposition here follows a reconstruction done by Mark Thacker.
3 Baxter 1955: 349.
4 For an example of this re-evaluation, see Thijssen 2004.
5 For what we know about Buridan's life see Zupko 2003.
6 See Michael 1985 for a detailed discussion of Buridan's writings.
7 E.g. Read 2002.
8 Hubien 1976.
9 See Duhem 1906–13 and Maier 1955.
10 See Grant 1977. The study of Buridan's physics is in a much better position now that his commentary on Aristotle's *Physics* is being published.

1

The Philosopher as Arts Master

Buridan's Career at the University of Paris

JACK ZUPKO

John Buridan's approach to philosophy was profoundly shaped by the institutional setting in which he worked as well as by the explicitly pedagogical aim of his activities as an arts master and teacher of undergraduate students. He was not unique in this regard, as the medieval university and its teaching practices were well established by the fourteenth century. But there are a number of things about his career that are unusual.

First, he remained for his entire career in the Faculty of Arts at the University of Paris, apparently without ever moving on to seek an advanced, doctoral degree in theology, which was the career path taken by other well-known philosophers of the time such as William of Ockham, Walter Burley, and Nicole Oresme. It was probably a deliberate choice on Buridan's part, but why this is we are not sure.[1] What it meant in practical terms is that he would have been responsible for teaching logic and the texts of Aristotle that constituted the arts curriculum (e.g., *Physics*, *De anima*, *Metaphysics*, *Nicomachean Ethics*) to undergraduates from his own Picard Nation. As a result, Buridan's literary remains are mostly in the form of commentaries on Aristotle – line-by-line commentaries that explain the literal meaning of the text and question commentaries that explore its deeper, philosophical significance – both of which originated in the lecture hall.[2] He also wrote one of the most influential logic textbooks of the medieval period, the *Summulae de dialectica* (*Compendium of Dialectic*), a comprehensive treatment of the topics in logic and semantics that were taught in the schools at the time.[3] Buridan's commentaries and textbooks are without exception models of clarity, sound exegesis, and careful argumentation. Copies soon found their way to other, newer universities in northern Italy and eastern Europe, where they served as prototypes for other masters teaching the arts curriculum. As a result, Buridan continued to influence the way philosophy was taught well into the early modern period.

Besides determining the philosophical genres in which he worked, Buridan's decision to remain an arts master meant that he had to be sensitive to the curricular mandates of the other faculties at Paris, especially the faculty of theology. Relations between the two faculties had become fraught in the latter half of the thirteenth century, culminating in the Condemnation of 1277, in

which the Bishop of Paris declared certain Aristotelian propositions defended by certain arts masters to be inconsistent with revealed truth.[4] The Condemnation cast a long shadow on later medieval philosophy, though it did not succeed in silencing philosophical discussion of ultimate questions about God and human nature. Buridan himself is circumspect in his approach to the relation between philosophy and theology: while conceding pride of place to theology, he at the same time establishes a domain for philosophy to operate independently, approximating what we might today think of as the secular realm. He says that theology takes precedence over metaphysics, the highest form of philosophy, but theology properly concerns what follows from church decretals and articles of faith, that is, from truths that are believed quite apart from the evidence we have for them.[5] But if we "leave the faith aside [*fide circumscripta*]," metaphysics stands as the preeminent form of human wisdom and ordering principle (*ordinatrix*) of all the other sciences, including everything taught in the other faculties. So why does philosophy belong to the "lowest" faculty, the faculty of arts, where undergraduates are educated? Buridan jokes that the low regard for arts and "artists [*artistae*]" might be due to "the wealth of those who profess in the other faculties," or perhaps to the fact that its curriculum includes the common or primary subjects of grammar, logic, and rhetoric. But along with such "trivial" arts, he reminds us that his faculty also teaches (1) natural philosophy, giving it precedence over medicine; (2) moral philosophy, giving it precedence over law; and (3) metaphysics, giving it precedence over all other forms of inquiry save revealed theology,[6] which Buridan regards as kind of wisdom (*sapientia*) but not knowledge (*scientia*), a term he reserves for what can be rationally demonstrated on the basis of sense, memory, and experience. Given the Condemnation of 1277 and other institutional efforts by church authorities to limit the autonomy of philosophy in medieval universities, this is a remarkable thing to say.[7]

When philosophical inquiry is understood in this way, it creates a space, distinct from revealed theology, where philosophy (or, more properly, metaphysics) can address questions "about God and divinity." The boundary is clear – "metaphysics considers only what can be proved and concluded deductively or inductively using demonstrative reason"[8] – but it enables Buridan to consider everything from the divine attributes (omnipotence, eternality, freedom) to the providential structure of creation and the relation between human happiness and final beatitude, all from a human, creaturely perspective.[9] Typically, he does not explicate matters of doctrine or challenge what the theologians say about God, but rather uses theological considerations to define the limits of philosophical inquiry. Thus, he famously defends the reliability of human empirical knowledge against his Parisian contemporary, Nicholas of Autrecourt, who used the doctrine of divine omnipotence to undermine confidence in the accepted Aristotelian accounts of perceptual,

causal, and inductive knowledge. Buridan's reply charges Autrecourt with an *ignoratio elenchi*, agreeing with Autrecourt that it follows from divine omnipotence that God could always deceive us in ways we could never detect, but denying that this is relevant to the justification of empirical knowledge, which is grounded in *a posteriori* considerations such as rational judgment and the evidence of sense, memory, and experience. Besides confirming the mandate of arts masters to teach philosophy via Aristotelian texts, this pointed the way to a definitive sphere of operations for philosophers, independent of revealed theology.

The second way in which Buridan was different was that he remained a secular master for his entire career rather than joining a religious order such as the Dominicans or Franciscans. Moving on to a higher faculty would have been natural enough for someone licensed to teach in the faculty of arts, since mendicant orders taught undergraduate novices at their own custodial schools, sending them to university only for graduate study. But in the larger context of fourteenth-century philosophy, this meant that Buridan was able to develop his views independently of the respective authorities invoked by the Dominican and Franciscan traditions, which were frequently in conflict. Thus, he was under no obligation, fraternal or otherwise, to defend the teachings of Thomas Aquinas on the Dominican side or those of Duns Scotus on the Franciscan side. What he does instead is help himself to insights and arguments from both sides, as needed, to develop his own positions. For example, he follows Thomas Aquinas in defending an intellectualist account of human free choice, arguing that whenever it chooses, the will is always motivated by reasons under the aspect of goodness. But he leavens this with the voluntarist consideration that as long as reason is not 100 percent certain about the best course of action, the will remains free not to accept it but rather to defer its choice in order to reflect on the matter further:[10]

> [T]he freedom according to which the will is able not to accept what has been presented to it as good, or not reject what is presented to it as bad, is of great benefit to us in the direction of our lives, so much so because in many things in which some prima facie aspects of goodness are apparent, thousands of evils often lie hidden, either as adjoined to them or as consequences of them. For this reason, accepting what appeared good would be inappropriate and detrimental to us. And so as well, what seems prima facie bad sometimes has hidden goodness, on account of which it would be bad for us to have rejected it.

This is not, to be sure, the same as the Scotistic idea that the will is an autonomous power able to transcend our natural and rational inclinations; Buridan clearly understands the will as a manifestation of our rational nature, not as a power belonging to an order distinct from it. Still, it represents a significant modification of the intellectualist position because it grants the will

autonomy over the intellect in a very wide range of practical cases, where free choice is exercised in the absence of decisive reasons.[11] Buridan is thereby able to respond to Article 169 of the Condemnation of 1277, which had criticized the view (held by Aquinas, among others) that the will cannot knowingly act against reason, by reminding us of the uncertainty of moral life and making a virtue of the will's ability to defer its acceptance or rejection of reason's dictates.[12]

We see a similar effort to harmonize opposing views in the case of Buridan's account of the cognition of singular objects. Duns Scotus had introduced the idea that not all human cognition occurs via a species or representative likeness abstracted from an object, which is the Aristotelian position defended by Thomas Aquinas; rather, there is a mode of cognition that is 'intuitive' in the sense that it provides an unmediated awareness of the existence of its object.[13] The motivation for the doctrine was theological insofar as Scotus thought that such direct awareness would be the mode of cognition enjoyed in beatitude, when we finally see God face to face, no longer "through a glass darkly" (1 Cor. 13:12), and, furthermore, that if beatitude is our natural end, the power of intuitive cognition ought to be present among our intellectual and sensory powers in this life.[14] Buridan accepts the doctrine, but he does not argue for it theologically, like Scotus, for the simple reason that as an arts master he was not permitted to address theological topics. What he does instead is provide an entirely secular account of the same idea, in terms of our ability to cognize an object as it exists before us, "in our prospect [*in prospectu*]." In this mode of cognition, he says, "things are perceived and judged to exist in the way they are perceived as existing in the prospect of the person cognizing them," such that our judgment that a singular entity exists "could not be proven more evidently than by the fact that it appears in the prospect of sense," that is, "just as you are present to me."[15] This is the basis for all singular cognition according to Buridan. It is the initial presentation of an object to the cognizing agent with its attributes "confused [*confusa*]," or fused together in their natural and unabstracted form. The same object may be further discriminated by the intellect as a singular of a certain type, or as representing a universal or common nature, but this requires the further act of abstracting a species from the initial presentation. Accordingly, the difference between divine and human cognition is that we lack the ability to understand everything there is to know about an object from its mere presence before us, whereas "God himself cognizes everything most distinctly and determinately, as it were in a singular manner, because he has everything per se perfectly in his prospect."[16]

Buridan is not so accommodating of views he disagrees with, of course, and in cases of conflict, he usually defends what he takes to be the simplest account of the phenomenon at hand. Thus, he famously rejects the theory that propositions have their own significates, known as *complexe significabilia*, which serve as the proper object of scientific knowledge – a view originally developed by the Franciscan theologian Adam Wodeham, but which Buridan