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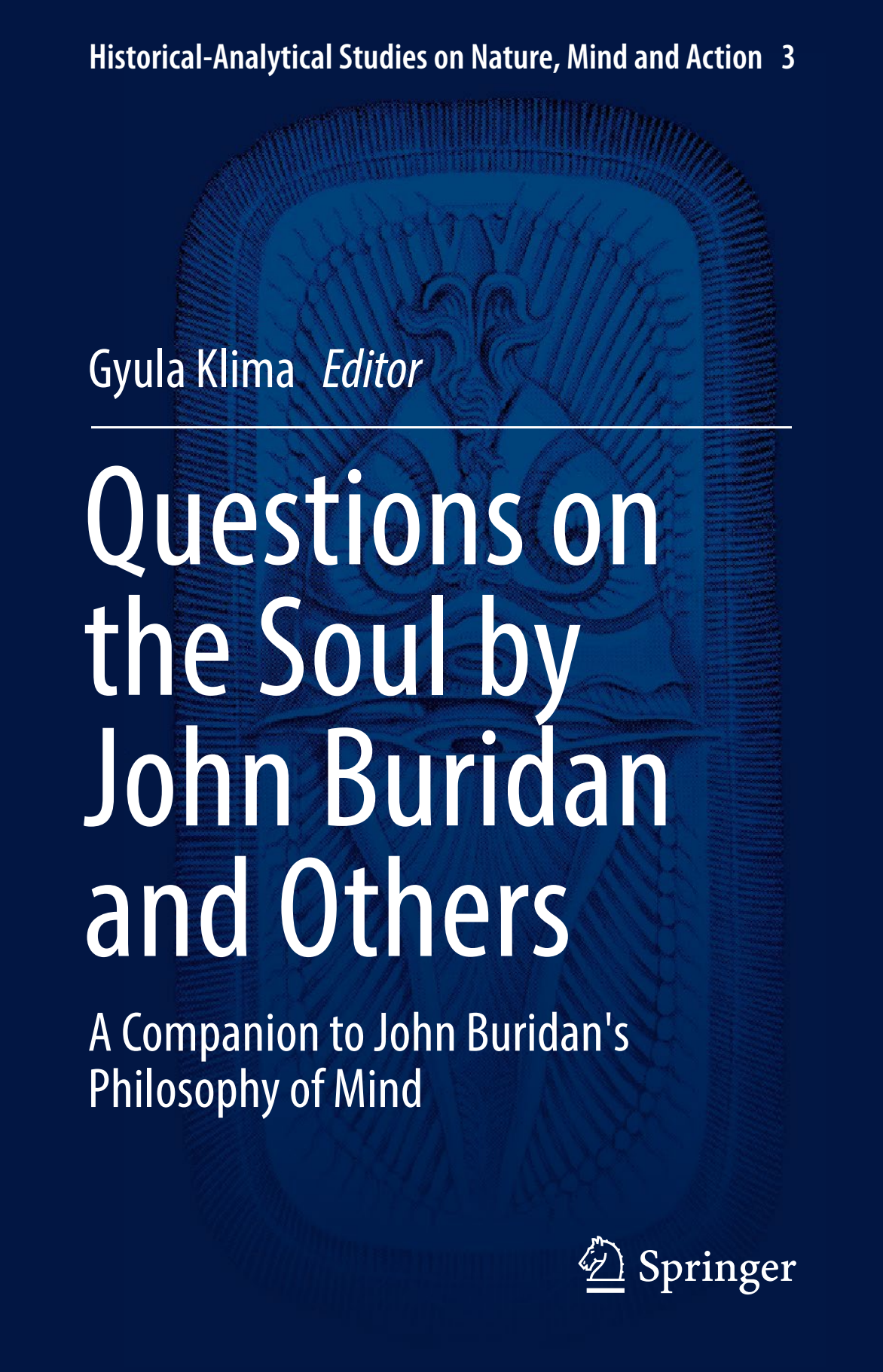

Gyula Klima *Editor*

Questions on the Soul by John Buridan and Others

A Companion to John Buridan's Philosophy of Mind

Springer

Historical-Analytical Studies on Nature, Mind and Action

Volume 3

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Questions on the Soul by John Buridan and Others: A Companion to John Buridan's Philosophy of Mind

In his own time, John Buridan (ca. 1300–1361) was a famous and extremely influential nominalist Master of Arts at the University of Paris. After William Ockham (ca. 1287–1347), it was Buridan's work that contributed the most to the emergence of what came to be called the *via moderna* or "new way" of doing philosophy in the later Middle Ages, as contrasted with the realist *via antiqua* or "old way." Indeed, much of what was programmatic, controversial, and tentative in Ockham became systematic, uncontroversial, and fully operational in Buridan, who departed in many, often fundamental ways from Ockham. It was Buridan who developed a systematic method of teaching and resolving philosophical problems using the techniques of nominalist logic that could be readily converted into a generally acceptable textbook format. This in turn facilitated its spread in the new universities being founded across Europe in the fourteenth and fifteenth centuries. Quite paradoxically, however, the success of this "new way" precipitated its own undoing. The fifteenth-century "strife of the ways" (*Wegestreit*), along with many other, extrinsic factors, led to the "battle of the faiths" (*Glaubenskampf*) and eventually to the demise of scholasticism. As a result, most people who have heard of Buridan today at all tend to associate him only with the unfortunately named scenario involving a donkey that allegedly starves to death between two equidistant and equally tempting piles of hay because it has no reason to eat one of them rather than the other. In fact, despite Buridan's enormous medieval influence, he practically disappeared from view until the middle of the twentieth century.

Buridan was rediscovered first in the 1950s and 1960s by historians of science—scholars such as M. Clagett, P. Duhem, E. Grant, A. Maier, and J. Murdoch —who were interested in his theory of *impetus* and his criticism of the traditional Aristotelian account of motion. A second wave of rediscovery, involving Buridan's logic and philosophy of language, took place in the 1960s and 1970s through the work of historians of philosophy such as E. J. Ashworth, S. Ebbesen, H. Hubien, G. E. Hughes, N. Kretzmann, E. A. Moody, J. Pinborg, S. L. Read, E. Reina, L. M. de Rijk, T. K. Scott, Jr., and P. V. Spade. Thanks to their efforts, a new generation of scholars (including several of the former's students, working closely together with scholars of "the second wave") have taken the process one step further,

aiming not only at *rediscovering* Buridan in order to advance our historical understanding of philosophy in the later Middle Ages but also at *recovering* his thought for contemporary philosophy. Given that Buridan's philosophical concerns are strikingly close to those of contemporary analytic philosophy on many issues (e.g., meaning and reference, essentialism, ontological commitment, intentionality, logical validity in a semantically closed, token-based logic—to name a few), members of this "third wave," working together with the former, have been placing Buridan into conversation with philosophers in our own day and age.

For scholars of the "third wave," it has also become clear that a thorough understanding of Buridan's logic, resting as it does on a theory of mental language (which provides for logic a fine-grained nominalist semantics consistent with a parsimonious ontology), is inconceivable without a detailed account of his cognitive psychology. In fact, medieval cognitive psychology has become one of "the hottest topics," as can be seen in the strong uptick in recent international meetings and publications in the field.

This scholarship, of which the present volume and the edition and translation it accompanies is an integral part, endeavors to bridge the linguistic and conceptual gap between mid-fourteenth century Paris and today, opening up new avenues of engagement between Buridan's ideas and current philosophical discussions on topics such as the nature of the human mind, the relation between mind and body, and the proper analysis of basic cognitive functions, such as perception, memory, and understanding.

As a result of the ever more intense work on Buridan's philosophy, Buridan has become widely recognized as one of the "hidden greats" in the history of Western philosophy—someone whose work simply cannot be ignored. It is the profound conviction of scholars working in this field that critical reflection on Buridan's work will enhance not only our historical understanding of the changing paradigms of late-medieval and early modern philosophies of mind but will also shed a fresh (not to say "new") light on some of our most recalcitrant contemporary predicaments, precisely by enabling us to look at these problems from the perspective of a different paradigm, which historically paved the way to ours.

It was this approach to Buridan's work, both as providing an important "missing link" in the late-medieval history of ideas and as a theoretical turning point in thinking about issues in cognitive psychology and the philosophy of mind, that animated the international conference in New York in 2012 (just before hurricane Sandy hit the town) dedicated to (a working version of) the Latin text edition and translation of the third and final version of Buridan's *Questions on Aristotle's* "*De anima*," containing Buridan's most comprehensive discussion of philosophical issues arising from Aristotle's psychology.

As a general companion to Buridan's philosophy of mind, the present volume, derived from that meeting, certainly covers somewhat more than Buridan's text it accompanies: it goes into detail concerning issues that are still theoretically intriguing to us and provides the historical context and references that Buridan often only gestures at. At the same time, this volume certainly covers less than what Buridan's rich work itself contains. However, it is our hope that this volume can serve as a

useful guide even concerning those issues in Buridan's text (also heavily referenced and annotated by our team of editors and translators) that are not explicitly addressed in the subsequent chapters.

Chapter 1, by Peter King (University of Toronto), "Later Medieval Philosophy of Cognitive Psychology," serves as an ideal thematic introduction, providing a systematic overview of the state of the philosophy of cognitive psychology in the first half of the fourteenth century, and so a framework for the subsequent chapters as well. In addition to outlining the broad consensus position, which he calls "the Neo-Aristotelian synthesis," King identifies "five specific trouble spots" in which this consensus is threatened:

1. The ontology of psychology
2. Mental architecture
3. Transduction
4. The object of thought
5. Intentionality

In his conclusion, King claims: "After the neo-Aristotelian synthesis was forged around the middle of the thirteenth century, it was subjected to intense scrutiny and criticism on several counts; nearly every tenet was rejected by one philosopher or another, and different philosophers tinkered with different parts, sometimes inventing a new defense, sometimes adding on a new part. The trouble spots canvassed above are still with us today: the metaphysical basis for psychological states, cognitive organization, transduction, singular thought, and intentionality. In each case, there were several competing solutions (or approaches to solutions) that were actively debated; the virtues and the vices of the neo-Aristotelian synthesis were being minutely scrutinized. Yet even where there seems to be a clear trajectory of development, positions were often maintained and defended, in spite of criticisms that seemed to other philosophers to be definitive. This was the philosophical context in which Jean Buridan gave his lectures on the *De anima*." The chapter, true to its introductory survey character, appends a list of suggested readings pertaining to each topic discussed in it.

Chapter 2, by Sander de Boer (University of Groningen), "Where Should We Discuss the Soul? On the Relation between the Doctrines of *De anima* and *De generatione et corruptione,*" addresses the main methodological issue raised by Buridan's questions on Aristotle's first book: the place of the *De anima* in the commentary tradition on Aristotle's natural philosophy. The chapter primarily discusses an intriguing difference between thirteenth- and fourteenth-century commentaries on Aristotle's *De anima*. Fourteenth-century commentators increasingly began to relate their discussion of Aristotle's definition of the soul as "the first act of the physical organic body, having life in potency" to low-level questions on the generation and corruption of the four elements usually discussed in commentaries on *De generatione et corruptione*. This tendency had important consequences for the analysis of what happens at the moment that the soul informs or leaves the body. This connection between *De anima* and *De generatione* is exceptionally clear in John Buridan's commentaries. The chapter argues that Buridan's work can be viewed as

the final stage of a development that can be traced back to Thomas Aquinas (1225–1274). After Aquinas famously defended the idea that the soul is the only substantial form of the body, philosophers inclined to a similar view began to wrestle with some of the counterintuitive consequences that seemed to follow from it, such as the consequence that nothing whatsoever seems to be shared between the living body and the corpse, apart, perhaps, from a striking similarity. By reinterpreting the relation between prime matter and substantial form, Buridan was not only able to avoid such counterintuitive consequences but also to put forth a unified natural philosophy in which the themes from *De generatione* and *De anima* supplement and reinforce each other.

As the "meta-psychological" issues raised by the second chapter were primarily resolved on the basis of determining the ontological status of the soul (King's "trouble spot" number 1), it naturally leads to the direct discussions of this problem in the subsequent two chapters.

In chapter 3, "The Trivia of Materialism, Dualism and Hylomorphism: Some Pointers from John Buridan and Others," after distinguishing atomism, corpuscularianism, and hylomorphism in terms of their differences on the metaphysics of the unity of material substances, I offer a precise positioning of Buridan's metaphysics of the soul on the theoretical spectrum ranging from materialistic monism to Cartesian dualism, contrasting, within that range, Aquinas' and Buridan's versions of a hylomorphic account of the human soul as the single substantial form of the human body, as opposed to various versions of pluralist theories of substantial forms which they both denied, as well as to the materialistic version of hylomorphism offered by William Jaworski in the recent literature on the philosophy of mind. Specifically, I argue that Buridan's nominalist logic prevented him, as a matter of semantics, from making the requisite metaphysical distinctions that allowed Aquinas to position the human soul on the razor-thin metaphysical borderline of materiality and immateriality (consisting in the human soul's having its single act of being in two modes, both as *quod est* and *quo est*) and that, as a result, Buridan ended up with a still genuinely hylomorphist, non-materialist (as opposed to Jaworski), but strongly dualistic (as opposed to Aquinas), metaphysics of the human soul.

Chapter 4, by Calvin Normore (UCLA), "Stuffs and Things in Buridan's Account of the Soul," focuses on the profound metaphysical issues stemming from Buridan's conception of the union of body and soul, also considered in the broader context of the union of substantial form and matter in general. Normore's argument traces in particular the rather strange metaphysical and mereological ramifications of Buridan's "homogeneity thesis" of material substances (the thesis that all material substances by themselves, without their accidental dispositions, must be homogeneous: every quantitative part of a material substance is of the same kind as is the whole), as presented in Buridan's difficult discussion in Book II, q. 7.

The subsequent six chapters deal with some of the issues related to King's "trouble spot" number 2, "mental architecture," the relationship between the powers and the essence of the soul, as well as the issue of how the synergy of the various powers of the soul can give rise to what we might call sensory awareness in the case of animal souls, and consciousness in the case of human souls.

Chapter 5, by Adam Wood (Wheaton College), "Aquinas vs. Buridan on the Substance and Powers of the Soul," contrasts Aquinas and Buridan on the question of the relationships between souls and their powers. Both thinkers considered the question of whether the soul's powers are distinct from the soul itself, and both gave an affirmative answer, but differed in that Aquinas insisted on a real distinction whereas Buridan was satisfied with a merely nominal or conceptual distinction, at least as far as principal powers are concerned; Buridan also distinguished instrumental powers, which he took to be really distinct from the substance of the soul. The chapter argues that anyone interested in allowing Aristotelian souls and psychological powers into their ontology at all—as both Aquinas and Buridan were—should draw a real, rather than merely nominal or conceptual, distinction between souls and powers (and between the powers themselves). Because Aquinas did so, and Buridan did not, Wood concludes that Aquinas has the better side of this debate.

Chapter 6, by Peter Sobol (University of Wisconsin–Madison), "John Buridan on External and Internal Sensation," builds on the thesis that although medieval scholars inherited a theory of sensation based primarily on visual phenomena from Aristotle and his Islamic commentators, this had yet to be applied to sensation in general. Roger Bacon began the task of elucidating the nature of sensible species (the primary representations of sensible qualities) and their role in sensation, but it was Buridan who devoted a large part of his question commentary to demonstrating that both external and internal sensation relied on species. Buridan departed from Aristotle in asserting a finite speed of light, but on the other side he departed from most of his contemporaries and remained faithful to Aristotle, by locating the organs of the common sense and the imagination in the heart instead of the head.

Chapter 7, by Peter Hartman (Loyola University of Chicago), "Durand of St.-Pourçain and John Buridan on *Species*: Direct Realism with and without Representations," takes up "the species debate" in greater detail, focusing in particular on the arguments of Durand of St.-Pourçain (ca. 1270–1334) against the need for species in sensation. Noting that most philosophers in the later Middle Ages agreed that what we immediately perceive are external objects and that the immediate object of perception must not be some image present to the mind, Hartman points out that most of these same philosophers also held, following Aristotle, that perception is a process whereby the percipient takes on the likeness of the external object, i.e., the *species*, a representation by means of which we immediately perceive external objects. But how can perception be at once direct, or immediate, and also by way of representations? John Buridan defends the traditional view, "direct realism with representations," which holds that the species represents the external object to some percipient even though it is not *that which* the percipient perceives, but that *by which* she perceives. The chapter contrasts Buridan's view with the one defended at Paris just a few decades earlier by Durand of St.-Pourçain, "direct realism without representations," according to which a species is not at all necessary, either as cause or as representation. The chapter keeps close tabs on the arguments on either side, but the argument that clinches the case, namely, Buridan's astute observation of a time lag between the existence of the object and the occurrence of its sensation, decides the issue in Buridan's favor.

Chapter 8, by Robert Andrews (University of Stockholm), "Bero Magni de Ludosia on the Parts of Sensation," deals with the further details of the Buridanian account of sensation, on the basis of a "super-commentary" on Buridan's *Questions*. Bero, a Swede at the University of Vienna, wrote a *Disputata super libros De anima* around 1433, a set of exercises held in order to elaborate upon previously held lectures on John Buridan's *De anima*. To show how Buridan's psychology was used by Bero, Andrews looks at a question arising from Book II, q. 9 of Buridan's commentary, where Buridan finds it puzzling (*mirabile*) how divisible and extended sensations inhere in an indivisible and non-extended human soul. Bero steps into this discussion with a very specific question: how are the parts of sensation experienced by the soul? Bero outlines five different opinions: (1) Any part of the sensation represents the whole. (2) Each part of the sensation represents a part of the whole. (3) The whole sensation represents the whole sensible ("the most common opinion today"). (4) The whole sensation represents any part of the whole. (5) Some parts of the sensation represent a part of the sensible, and others not. Andrews points out that Bero conducts his discussion on a scientific basis, using diagrams and propositions from the Perspectivists. Even if Bero may not have resolved the issue causing Buridan's puzzlement, his text suggests that teachers and students in fifteenth-century Vienna were quite familiar with *De anima* commentaries from the previous century, and that Buridan's commentary was foremost among them, not only because it provided the agenda for discussion, but also because it was their main source for solutions to the problems raised by Aristotle's text.

Chapter 9 by Henrik Lagerlund (University of Western Ontario), "Buridan and Others on the Common Sense," deals with the issue of the integration of sensations into conscious experience by the inner sense, the so-called common sense. The chapter focuses specifically on two of the most important functions ascribed to the common sense since the time of Aristotle: (i) its ability to make us aware of what we are sensing and (ii) its ability to sort out what we are sensing and distinguish it from other things. After noting how these two functions are related to modern discussions about consciousness and binding, the chapter uses a type of argument that Kant called "the Achilles of rationalist psychology" to argue for Buridan's dualism between the soul and the body, both in humans and in brute animals.

The brief chapter 10, "Buridan on Sense Perception and Sensory Awareness," is inserted here, despite the fact that it does not originate from the New York meeting, to counter this rather strong conclusion. In this chapter, I argue for an alternative interpretation of Buridan's position, presenting it as a purely functionalist, "physicalist" theory of pure sensory awareness. To be sure, the concluding paragraph of the chapter grants that in the case of the human soul, Buridan would certainly take a dualistic position, which definitely adds some further complications to Buridan's account of specifically human consciousness (to be addressed by later chapters in detail). However, it should be pointed out here that Buridan takes this dualistic position *not* on account of his theory of the common sense (for which he explicitly assigns a material organ, namely, the heart, after considering and rejecting the idea that it is in the brain), but because he thinks the intellective soul is immaterial,

although he argues that this is not a demonstrated philosophical conclusion, but rather an article of faith.

Chapter 11, by Martin Pickavé (University of Toronto), "Buridan on the Psychology and Morality of Appetitive Acts," deals precisely with some of the complications in our specifically human consciousness just mentioned, in particular, in connection with affective psychology, dealing with appetitive acts. Although affective psychology is a relatively neglected topic by Aristotle, and thus in medieval commentaries on Aristotle as well, Buridan does say some very interesting things about appetitive acts. In Book III, q. 18 of his commentary, which asks "whether in a human being one appetite is contrary to another," Buridan develops a sophisticated account of appetitive acts based on the distinction between simple appetitive acts and efficacious appetites. Distinguishing between different forms of appetitive acts opens the way for a novel approach to the emotions on the one hand and to motivational conflicts (including weakness of the will) on the other. The chapter argues that in Buridan's moral psychology, motivational conflicts need not be located in different parts of the soul and further that Buridan has the conceptual tools to provide a fine-grained analysis of motivational conflict that is not forced to rule out the existence of certain psychological phenomena (e.g., clear-eyed *akrasia*) on merely theoretical grounds. As the chapter concludes, "Buridan may be more famous for his contributions to logic, metaphysics, and cognitive psychology, but one should not forget that he was also a highly interesting philosopher of action."

Chapter 12, by Jack Zupko (University of Alberta), "Intellect and Intellectual Activity in Buridan's Psychology," takes us to Peter King's "trouble spot" number 4, transduction, that is, the cognitive psychology of the transmission of sensory information for intellectual processing. Zupko discusses Buridan's theory of mental acts as Buridan himself presented it, working sequentially through the initial and counter arguments, eight main theses, and the closing replies of Book III, q. 16 of Buridan's commentary: "whether the human intellect can understand more than one thing at once." What emerges is that Buridan's answer in q. 16 is based on what is meant to be a single theory developed, somewhat discontinuously, in earlier questions in Book III (qq. 8–11 and 15) on the activity of the intellect. This theory mentions three kinds of mental acts: understanding (*intelligere*), believing (*credere*), and attending to (*se convertere ad*). We can understand, or think, only one thought at a time, but that thought can be *about* more than one thing at the same time. Buridan does not offer an account of the compositionality of thoughts (*intellectiones*) distinct from his theory of the compositionality of propositions in logic. He also says that the intellect trades in beliefs (*opiniones*), which must belong to a different species than thoughts if we are to maintain any principled distinction between occurrent and dispositional states of the intellect. What he does not offer in q. 16 is an account of how dispositions belonging to one species can cause occurrent thoughts belonging to another, different species. Finally, the act of attention is presented in terms of the intellect turning on itself, that is, reflexive thought. Zupko notes that this topic is more fully discussed in q. 9 of Book III, although there the metaphors used to understand the intellect's reflexive activity remain problematic.

Chapter 13, by Susan Brower-Toland (Saint Louis University), "Buridan on Self-Knowledge," takes on precisely this problem. The chapter first outlines the problem faced by all medieval commentators on Aristotle's *De anima*, Buridan included, which is that even though Aristotle's text is predicated on the assumption that knowledge of the soul is possible, explaining just how we arrive at such knowledge is far from straightforward. The chapter argues that, on Buridan's account our general concept of intellect is inferentially derived from our experience of our own intellective states and rational activities. According to the author, Buridan's notion of experience is a non-conceptual, non-discursive mode of self-awareness. On that interpretation, then, it turns out that, for Buridan, our concept of the intellect itself and, hence, the science of (human) psychology in general, is ultimately grounded in the phenomenal experience of our own intellective states.

Chapter 14, by Tim Noone (Catholic University of America) "Scotus and Buridan on the First Known (*Primum Cognitum*)," takes up King's "trouble spot" number 4, the object of thought, dealing with the issue of what the "primordial" object of our intellective cognition is, contrasting Buridan's position with that of John Duns Scotus (c. 1266–1308), perhaps, the most influential author on the issue after Aquinas. The chapter argues that, on the question of whether Buridan was influenced by Scotus on the *primum cognitum*, there is some slight, but not overwhelming, evidence that Buridan knew arguments similar to those advanced by Scotus, but none that show in a detailed manner any important influence of Scotus's theory. Noone holds that Buridan's endorsement of the Avicennian notion of the *individuum vagum* (the concept whereby we cognize an individual within our view as "this thing,' 'this body,' or 'this animal," i.e., in terms of a demonstrative subsuming the thing under some common notion), as aligning precisely with the predicamental line of predicates pertaining to the individual, means that when our minds grasp individual things, they do so because, in a way, the senses present what is general first. Furthermore, Buridan's insistence that the individual that is Socrates is first grasped through a more general notion rather than distinctly as a human is actually rather close to Scotus's position, although without taking recourse to any of the refined distinctions whereby Scotus articulates his position. So, the chapter concludes that we have, at the level of empirical psychology, some convergence between the two thinkers; however, at the level of ontology and the metaphysical underpinnings of human thought, Buridan and Scotus are quite far apart. Indeed, it would seem that Buridan only thinks about the related issues in terms of a new, nominalist paradigm, simply leaving the original problematic behind.

Chapter 15, by Claude Panaccio "Linguistic Externalism and Mental Language in Ockham and Buridan," takes on the issue of objects of thought in a purely nominalist setting, comparing Ockham's and Buridan's accounts of the same questions. The chapter argues that whereas William of Ockham can legitimately be branded as a linguistic externalist, Buridan's considered position with respect to linguistic meaning is a form of internalism. In this discussion, much hinges on the precise understanding of the medieval doctrine of *imposition*, the mechanism whereby written and spoken symbols are subordinated to acts of thought, and how this mechanism relates individual acts of thought to their publicly recognized objects. Indeed,

how does objective, linguistic meaning arise from our subjective, individual, mental representations?

Chapter 16, by Jennifer Ashworth (University of Waterloo), "Was Buridan a 'Psychologist' in his Logic?," takes on precisely this issue, considering the plausibly emerging charge that Buridan's account of the relationship between language and thought, taking linguistic signs to be subordinated to individual mental acts of individual human minds, makes his conception of logic susceptible to Frege's famous arguments against "psychologism" in logic. The chapter argues that Buridan's focus in his logic was on epistemology rather than psychology. Invoking the idea of a *natural similarity* among our individual mental representations, and thus the idea of a mental language as the common, natural representational system of all human thought, Buridan is able to avoid Frege's criticisms. Nevertheless, he does seem to have been an adherent of what Susan Haack has called "weak psychologism": Buridan did not think that logic involves only a description of how we *do* think, but that it prescribes how we *should* think.

Finally, chapter 17, by Joël Biard (CESR, Université François Rabelais, Tours) "Buridan, Intentionality and Its Paradoxes" tackles the final "trouble spot" on King's list, intentionality, from Buridan's perspective, namely, dealing with the apparent logical paradoxes emerging in *intentional* contexts, such as the breakdown of the substitutivity of identity, or reference to and quantification over non-existents in the context of terms signifying mental acts. Paradoxes arising from the use of intentional terms in propositions had been discussed by philosophers since the twelfth century, but Buridan's explanation of the semantics of propositions containing verbs of knowing, believing, wishing, etc., whether joined with simple terms or with propositions, is much more sophisticated than that found in any other medieval (or, for that matter, modern) work. Buridan explores aspects of intentionality ranging far beyond the use of verbs expressing propositional attitudes. His original theory of *appellatio rationis* provides not only a plausible account of how the logical paradoxes emerging in intentional contexts ought to be treated in a consistent manner but also the "down-to-earth" philosophical rationale as to why such paradoxes emerge in these contexts in the first place, namely, the fact that mental acts signified by psychological terms generating intentional contexts always concern their objects by means of the concepts (*rationes*) of these objects.

All in all, the essays presented here provide a fairly full account of Buridan's thought on philosophical psychology, both in its own historical context (set against the background of "the Neo-Aristotelian synthesis" and its "trouble spots") and in its relation to our own modern conundrums in the field. But, of course, nothing can replace "the real deal," Buridan's own work, hence the idea that this volume can serve only as a companion to that work: *tolle, lege*.

Gyula Klima

Acknowledgments

I wish to thank in the first place the contributors for their participation in the conference (October 28–30, 2012, at Fordham Lincoln Center, New York, NY) from which the chapters of this volume (with the exception of c. 10) originate, as well as their stimulating contributions and collaboration in the protracted process of producing not only this volume, but also the volume it accompanies, the edition and annotated English translation of John Buridan's "Questions on Aristotle's *On the Soul*". I would also like to thank two graduate assistants, Michael Dauber and Michael Korngut, for their help with proofreading, reference-checking, and compiling the cumulative bibliography.

Carrying out this enterprise would not have been possible without substantial financial and institutional aid. We, the editorial team of both volumes and the contributors, gratefully acknowledge two generous grants from the *National Endowment for the Humanities*, a grant from the *John P. McCaskey Foundation*, and the financial and institutional help provided by Fordham University's *Graduate School of Arts and Sciences* and my home department, Fordham's *Department of Philosophy*.

But above all, as always, I am personally most indebted to my loving family, my wife, Judit, and my son, Greg.

New Rochelle, NY — Gyula Klima
October 6, 2016

Contents

Abbreviations
(For complete entries, check the Cumulative Bibliography)

Aristotle (Arist.)

AL	*Aristoteles Latinus*
ANPR	*Analytica Priora*
ANPOST	*Analytic Posteriora*
DA	*De Anima*
DG	*De Generatione et Corruptione*
META	*Metaphysica*
NE	*Ethica ad Nicomachum*
PHYS	*Physica*

Aquinas, Thomas

DEVER	*Quaestiones disputatae de veritate*
Sent. DA	*Sententia De Anima*
ST	*Summa Theologiae*
De spirit. creat.	*Quaestio disputata de spiritualibus creaturis*
Quaes. DA	*Quaestio disputata de anima*
SN	*Super Sententiarum Petri Lombardi*

Auriol, Peter

Sent.	*Sentences*

Averroes

Comm. DA *Aristotelis de anima libri tres cum Averrois comentariis*

Avicenna (Avi.)

[SDA]: *DA* *De Anima* (of the *Shifa*)
Avi.*PHYS* [Avil.] *Liber primus naturalium* [*Avicenna Latinus*]
Avi.*META* [Avil.] *De philosophia prima sive scientia divina* [*Avicenna Latinus*]

Bero Magni

Dis. DA *Disputata super libros De anima*

Brito, Radulphus

Qq DA *Quaestiones de anima*

Buridan, John

QC *Quaestiones in Praedicamenta*
QDA *Quaestiones de Anima*
QDEINT *Questiones longe super librum Perihermeneias*
QDGC *Quaestiones de Generatione et Corruptione*
QPHYS *Quaestiones Physicorum*
QMETA *Quaestiones Metaphysicorum*
QPI *Quaestiones in Porphyrii Isagogen*
QANPR *Quaestiones in Analytica Priora*
QANPOST *Quaestiones in Analytica Posteriora*
QDAL *Quaestiones de Anima ed. Lockert*
QDANV *Quaestiones de Anima ("non de ultima") [ed. Patar: 'secunda lectura']*
QEL *Quaestiones Elencorum*
QTOP *Quaestiones Topicorum*
SD *Summulae de Dialectica*
SDPROP *Summulae de Dialectia, Tractatus de Propositionibus*

SDPB	*Summulae de Dialectia, Tractatus de Praedicabilibus*
SDPM	*Summulae de Dialectia, Tractatus de Praedicamentis*
SDSUP	*Summulae de Dialectia, Tractatus de Suppositionibus*
SDSYL	*Summulae de Dialectia, Tractatus de Syllogismis*
SDLD	*Summulae de Dialectia, Tractatus de Locis Dialecticis*
SDF	*Summulae de Dialectia, Tractatus de Fallaciis*
SDD	*Summulae de Dialectia, Tractatus de Demonstrationibus*
SDSUP	*Summulae de Dialectia, Tractatus de Suppositionibus*
SDSOPH	*Summulae de Dialectica, Tractatus de Practica Sophismatum = Sophismata*
TC	*Tractatus de Consequentiis*

Capreolus, John

Defensiones	*Defensiones theologiae Divi Thomae Aquinatis*

Durand of St.-Pourçain

Sentences (A)	Sent (A)
Sentences (C)	Sent (C)
QQ. de libero arbitrio	*Quaestiones de libero arbitrio*

Giles of Rome

Comm. DGC	*Commentaria in libros de generatione et corruptione*

Heytesbury, William

Tractus de sensu	*Tractatus Gulielmi Hentisberi de sensu composito et diviso, Regule eiusdem cum Sophismatibus*

John of Jandun

Qq. De an.	*Quaestiones De anima*

Kilwardby, Robert

Qq. II Sent *Quaestiones in secundum librum Sententiarum*

Melancthon, Philipp

lib. DA *Liber de anima*

Ockham, William

SL *Summa logicae*
Ord. *Ordinatio*
Rep. *Reportatio*

Olivi,Peter

II Sent *Quaestiones in secundum librum Sententiarum*

Oresme, Nicole

Qq. DA *Nicolai Oresme expositio et quaestiones in Aristotelis De anima*
Qq. DGC *Quaestiones super De generatione et corruption*

Ps.-Buridan

QDAP *Ps.-Buridan, J. (1991). ed. Patar*

Scotus, John Duns

In META *Quaestiones super libros Metaphysicorum Aristotelis*
Lect. *Lectura*
Ord. *Ordinatio*
In DA *Quaest. De an.*
Rep. Par. *Reportatio Parisiensis*

Later Medieval Philosophy of Cognitive Psychology

Peter King

By the time Jean Buridan gave his lectures on Aristotle's *De anima* at the University of Paris in the first decades of the fourteenth century, there had been a long history of speculation on philosophy of psychology, to the point where cognitive psychology looked much like the natural philosophy (physics) of the day: broad consensus on methodology, on basic principles, and on enough of the field to establish what Thomas Kuhn called the matrix of 'normal science' as the mainstream line of research, with recognized trouble-spots calling for further work. In the case of natural philosophy, these trouble spots were places where the inherited Aristotelian framework, derived above all from Aristotle's *Physics* and its associated Arabic commentaries, seemed either mistaken or incomplete; the cases of projectile motion and the (non)existence of the vacuum were particularly challenging. In the case of the philosophy of cognitive psychology, Buridan's main concern, the consensus and its trouble-spots are less often seen for what they are: part of the systematic evolution of a field of inquiry, whose outlines I aim to sketch in what follows. The tale I will tell is a blend of historical and systematic developments, mixing causes with reasons, designed to present not only a picture of the debates with which Buridan was faced but also an explanation of their development. Like any broad overview, it suffers unavoidably from oversimplification and compression; its virtue, if any there be, is offering a clear view of the forest rather than the trees. For those who want a closer look at one tree or another, there is a wealth of scholarship, references to which can be gleaned from the detailed studies that follow in this volume. Here the task is instead to get a handle on how philosophers understood cognitive psychology at the beginning of the fourteenth century.

In what follows I'll first describe earlier medieval work on the philosophy of cognitive psychology relevant to the later debates, and then spell out the details of

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the consensus that was reached in the middle of the thirteenth century, what I call the 'Neo-Aristotelian Synthesis', analogous to the 'normal science' of natural philosophy. I then turn to five specific trouble spots in which this consensus is threatened: the ontology of psychology, mental architecture, transduction, the object of thought, and intentionality.

The Long Shadow of Augustine

The dominant influence on the philosophy of psychology in the early medieval period, and arguably for the whole of the Middle Ages, was Augustine. However, the recognition of psychology in the later Middle Ages as an intellectual discipline in its own right—a science—is due not to Augustine, but to the influence of Aristotle's *De anima* once it became available in Latin translation, much as natural philosophy was deeply indebted to his *Physics*. Its success is more puzzling than that of the *Physics*, though, since the scientific status of psychology in Aristotle is problematic, and several of the problems are highlighted at the very start of the *De anima*: How is psychology a science distinct from biology and from physics? How is psychology a single field of inquiry if there are a plurality of types of soul? If psychology is a branch of natural philosophy, then how can the immaterial human intellect be studied as part of it? No clear answers to these questions were forthcoming, and they remained matters of controversy for the rest of the Middle Ages. Yet, warts and all, in his *De anima* Aristotle managed to offer philosophers (*a*) a vocabulary and set of technical tools for discussing psychology; (*b*) a framework of interconnected problems about psychology; and (*c*) answers to these same problems. In short, Aristotle provided what Augustine did not, namely a viable research program.

For all that, Augustine's influence on medieval philosophy of psychology was powerful and inescapable. His stature as a Father of the Church and his unquestionable orthodoxy on matters of Christian doctrine gave him a standing and a cachet Aristotle could not have. What is more, only disconnected bits and pieces of Aristotle's views were available in Latin during the early Middle Ages: a few remarks about understandings at the start of the *De interpretatione*, an obscure report by Boethius that there are three types of soul, and some desultory claims about perception that had been incorporated into the encyclopedists and Neoplatonic summaries. Most of Aristotle's views about psychology were no competition in the early Middle Ages simply because they were almost unknown.

Augustine does not owe his influence merely to ignorance about Aristotle, however. The history of psychology was shaped by the fact that Augustine was a philosopher of genius whose sensibilities were especially tuned to psychological matters. Although he never wrote a treatise expressly devoted to the philosophy of psychology, Augustine's (un)systematic remarks on the subject—particularly in his works *The Teacher*, *Confessions* 10, and *The Trinity* 10–15 (the latter of which was required reading for theologians throughout the Middle Ages)—put a series of

topics permanently on its agenda, accompanied by Augustine's own proposals about how to best address them, topics that Aristotle often either neglected or downplayed in his own work; they were the subject of lively philosophical debate in the later Middle Ages and came to be thought of as distinctly 'Augustinian' worries. This is not entirely accurate. Augustine has much to say, for instance, in *The Trinity* about the nature of sense-perception, including details about its physiological mechanics. But when later philosophers became acquainted with the *De anima*, they usually preferred Aristotle's treatment of these issues, integrated as it was with the rest of his approach to psychology, and Augustine's discussion was silently passed over. There is much more in common between Aristotle and Augustine than focusing on their differences might lead one to believe.

The topics Augustine bequeathed to later medieval cognitive psychology are as follows: (*i*) learning and comprehension, or more generally what understanding as an active process might be, which Augustine tried to resolve with his theory of illumination; (*ii*) the mechanisms and phenomenology of memory, including storage, recollection, and the nature of time-consciousness; (*iii*) attention, concentration, and mental 'focus' at both the perceptual and intellective levels; (*iv*) (self)-consciousness; (*v*) the ontological status of the psyche/soul, in particular its possible postmortem survival, a concern mentioned obscurely in passing by Aristotle but dwelt on at great length by Augustine and others. Since Aristotle said relatively little about (*i*)–(*v*), philosophers could address these topics without having to come into conflict with Aristotle, and treat their results as extensions of Aristotle's position—though, of course, there were philosophers who developed their views on one or another of these topics in such a way as to develop theories that were inconsistent with Aristotle. (These philosophers are usually lumped together under the banner of 'Augustinians'.) Whether one thought that Augustine's proposals for how to address (*i*)–(*v*) should be accepted or not, it is clear that they are central to cognitive psychology, and they lent a distinct flavor to later investigation.

Apart from Augustine, only two other sources prior to the thirteenth century are worth mentioning. First, the medical tradition had much to say about the physiology of perception and at least some of the large-scale features of neuroanatomy that underlie cognition. Like Augustine, later philosophers tried to keep abreast of the developments in medical knowledge (e.g. in analyzing the function and operation of the nerves) and to take them into account when engaged in philosophical psychology, particularly with regard to sense-perception, which was usually regarded as a physiological process.

Second, Peter Abelard in the twelfth century offered an extended critique of the Aristotelian thesis that the cognition of φ is a matter of having the form-of-φ in one's cognitive apparatus, either directly or through some sort of intermediary representation (Abelard likely did not recognize Aristotle as the source of the view). In its place he proposed a theory of thinking as essentially linguistic in structure. While Augustine had an account of developed conceptual thought as the "inner word," Abelard adopts principles of compositionality and logical scope to explain thought, being the first to treat the mind as a symbolic processing engine. Yet Abelard's views, presented in his *Treatise on Understandings* and in his commentaries on the

few Aristotelian texts available to him, seem to have little by way of precedent and even less influence, not taken up by later thinkers even in his own time as far as we know. The later rebirth of theories of mental language at the turn of the fourteenth century seems wholly original and not indebted to Abelard's pioneering work.

Speculation on cognitive psychology in the early Middle Ages, then, was broadly Augustinian and to a large extent simply Augustine, who cast a long shadow over his successors. It took nothing less than a general intellectual revolution for later philosophers to begin thinking systematically about the fundamental principles of cognitive psychology. That revolution, of course, was sparked by the recovery, translation, and dissemination of Aristotle, a project that took roughly a century from its beginnings around the middle of the twelfth century, and requiring the birth of a new social institution for the transmission of knowledge: the university.

The Neo-Aristotelian Synthesis

By the middle of the thirteenth century, Aristotle's *De anima* had become an accepted part of the curriculum in the Faculty of Arts at Paris and, to a lesser extent, at Oxford: required reading at the former, one way of fulfilling science requirements at the latter. Along the way the *De anima* was translated twice, first by James of Venice (*ca*. 1150) and then by Michael Scotus (*ca*. 1220), before William of Moerbeke produced a definitive Latin version (*ca*. 1265). Its journey to academic respectability was not smooth; the *De anima* was condemned several times by the authorities in the first half of the thirteenth century for its supposed non-Christian views. In spite of such opposition, with the help of commentators both Greek (Themistius) and Arabic (Averroës) as well as a wary eye to orthodoxy and to Augustine, philosophers in middle of the thirteenth century put together a systematic account of psychology based on the *De anima*—the 'neo-Aristotelian synthesis' that became the mainstream doctrine.

The fundamental principle of the neo-Aristotelian synthesis is that psychological phenomena are to be explained in terms of internal psychological mechanisms that bring them about: roughly speaking, that psychological explanations should be couched in terms of the interaction of (perhaps only postulated) psychological mechanisms. In the case of cognition, these mechanisms are for the most part subpersonal and semi-autonomous, that is, they do not involve the whole person as agent but only some psychological mechanism, and further that these mechanisms have a degree of independence from one another in their operation. Introspectible psychological phenomena are the product of the interaction of such inner mechanisms.

These (perhaps postulated) psychological mechanisms, each a locus of activity and in that sense quasi-agential, are causally interconnected; typically one causes or triggers the action of another, where the causation in question is analyzed in terms of potency and act. In general, their existence and nature is deduced from the functions they discharge. Typically, these semi-autonomous mental modules—usually

called 'faculties'—transfer (or 'transduce') information from one relatively isolated part or mechanism to another. The process of transference was understood as the 'transmission of form', on the grounds that to count as information at all what is transferred must have some structure; when the process of transmission is information-preserving, it was understood as an instance of 'the same form' in each faculty. The vehicle by which the form is transferred is itself a mental representation (*species*) which mediates among the several faculties of the mind.

To summarize: According to the neo-Aristotelian synthesis, the best explanation of cognitive psychological phenomena is given by functionally-defined subpersonal mechanisms operating in relative independence on representations. At this level of generality, their project closely resembles contemporary cognitive science. Details bear out the similarity at the 'base level' of sense-perception (sensitive cognition), the analysis of which is integrated in a broader causal account.

Consider what happens when Socrates sees the horse Bucephalus. The horse affects Socrates's sense-organs by having a causal impact on the intervening medium, in a way spelled out in the case of vision not by psychology but rather by the medieval science of optics (*scientia perpsectiua*): in normal circumstances the light reflected by Bucephalus affects sequentially the layers of air between it and Socrates, where the transmitted information in each layer of the intervening medium causally reproduces itself in the next layer—the so-called *species in medio* ("representation-in-the-medium") doctrine. However the optical story may go, the important point is that the relevant visual information is transmitted to Socrates, such that his affected sense-organs (in this case his eyes) are put into one of their possible determinate configurations δ_i. Each of Socrates's sense-organs is correlated with a sense-faculty in the expected way, so that the eye is the sense-organ for the faculty of vision, the ear for the faculty of hearing, and so on; in general, a sense-faculty is the *form* or actuality of the associated material sense-organ, as a particular instance of the form-matter relation between soul and body. The sense-organ is part of a living body, which means that it has the appropriate sort of receptivity to the objects it senses. In particular, the sense-organ responds differentially to a range of causal input, such that it can be put into a fixed range of determinate configurations $\delta_1 \ldots \delta_n$ depending on the distal stimulus, where being put into the state δ_i—that is, when the material sense-organ actualizes its capacity to be in δ_i—realizes the sense-faculty's ability σ_i to have a sense-experience of the appropriate sort. Less abstractly, what it is for Socrates to see Bucephalus is for his eyes to have a distinctive pattern of rod and cone firings, integrated for binocular vision, that occurs when he sees Bucephalus rather than any other horse, or at least rather than any other kind of animal, and which is characteristic of horses rather than of other things; the rod-and-cone-firing pattern *is* in all the relevant respects the visual experience of Bucephalus.

Hence the analysis of sense-perception begins with an exact understanding of the form-matter relation of the sense-faculty and its associated sense-organ, treating this relation as a variety of the act-potency relation in such a way that the object and the sensing of it are 'formally identical'. Take Bucephalus again. What makes him a horse and not, say, a marmoset, is the presence of the form of horseness in him.

This form is physically transmitted through the intervening medium to affect Socrates's eyes, putting them in proper 'Bucephalus'-configuration, which captures exactly whatever can be captured about Bucephalus as an individual. The causal action of Bucephalus on Socrates is necessary, because it is true in general that something is reduced from potency to act only by an agent cause. That is to say, whenever there is some actualizing process going on, there is an agent which causes the occurrence of that process. In sensitive cognition, the sensed object is therefore the agent cause of the determinate actualization of the potencies of the sense-faculty. External objects are actually sensible; in standard circumstances, they causally bring it about that they are actually sensed.

So much holds for each of the five external senses, *mutatis mutandis.* The distinction of external and internal senses seems required by the evident facts of experience, but the internal sense faculties (however many there may be) are given the same kind of potency-act-cause analysis.

The base level of sensitive cognition, as sketched above, was taken to provide the tools to be used in the analysis of intellective cognition, held to operate in an analogous fashion: subpersonal and semi-autonomous cognitive faculties connected by potency-act-cause relations.

The 'analogue level' of intellective cognition (understanding) differs in two main ways from sensitive cognition. First, the intellective soul is immaterial and therefore discharges its operation without making use of an associated localized organ; the corresponding analysis of its behavior cannot rely upon physiology the way the analysis of sense-perception can. Second, an agent cause must be postulated for intellective cognition, the operation of which is analogous to the causal activity of the external object in sensitive cognition, on the grounds that the object has spent its causal powers in bringing about sensory cognition; this cause is called the 'agent intellect', in contradistinction to the 'possible' (less commonly 'material') intellect, and it is the causal agent directly responsible for occurrent thought, which may take place through a sequence of actions; according to the neo-Aristotelian synthesis, the agent intellect operates on the representation involved in sensitive cognition and (thereby?) causally affects the possible intellect. Roughly, when Socrates encounters Bucephalus, his agent intellect repurposes the information found in the sensible representation to prepare it for the higher-level activity of thought, which it then causally impresses on the possible intellect, thereby actualizing the capacity of the possible intellect to think whatever the thought associated with Bucephalus may be. These intellective mechanisms are postulated; unlike the case of sense-perception, we have no direct access to the elements involved in intellective cognition.

There is much to admire in the neo-Aristotelian synthesis. An economical set of principles, sketched above, yields a theoretically rich articulated structure, one that can plausibly lay claim to being a complete theory of cognitive psychological phenomena. Its explanatory power derives in part from the complex structure it hypothesizes to underpin cognition: the distinction of the various faculties, the uniformity of principles which govern their interaction, the proposal that conscious psychological phenomena are the result of complex activities—all this gives some explanatory traction to the neo-Aristotelian approach to psychology.

Yet there is much to criticize and revise as well. In some cases the controversy was so intense that some philosophers came to reject the neo-Aristotelian synthesis altogether; others tried to modify it; some to defend it. These controversies, seen against the backdrop of the neo-Aristotelian synthesis, provide the context for Jean Buridan's cognitive psychology.

The Ontology of Psychology

According to the neo-Aristotelian synthesis, the life of an animal, at least of a complex animal, is a holistic feature of the animal. It is not identifiable with some matter or some material part belonging to the animal—or, put in medieval terms, the sensitive soul is not a body. For the life of a complex organic system consists at least partly in the appropriate interaction of its constituent organic subsystems, and the proper functional relation among the parts is not itself a part, thus *a fortiori* not a material part. Rather, the sensitive soul is (weakly) supervenient on the material constituents that make up the animal's body, and wholly dependent upon them. But this does not give the sensitive soul any independent ontological weight, for such things can be 'reduced' or 'eliminated' in favor of the arrangement and disposition of the material parts upon which they supervene. What is true for the sensitive soul as a whole also holds for the activity of sensing. Sense-perception is consequent upon the physiological changes in the sense-organ without being itself a material phenomenon. The sense-organ is the proximate subject of the sensing, as noted, but the act of sensing is properly received in the ensouled composite as a whole: we do not say that the eyes see, but rather that Socrates sees. Sensing is therefore an activity that can take place only through a bodily organ, much as dancing requires a dancer.

However, the human mind (the intellective soul) is a form that does have some kind of ontological standing independent of its combination with matter, a status with sufficient ontological independence to allow it to be the locus of emergent nonmaterial properties, such as thinking and willing, which do not require a bodily organ for their existence (and perhaps not a body at all)—a medieval version of property-dualism. Psychology thus became entangled with the metaphysics of hylomorphic compounds, that is, of form/matter composites. The context in which debates over the metaphysical nature of such hylomorphic compounds took place had to do with whether a substance had only a single substantial form (the 'unitarian' position) or more than one such form (the 'pluralist' position); the central point at issue was the unity of the form/matter composite.

John Duns Scotus emerges as an advocate of a middle-of-the-road position. In the backwash of the extensive debates between Henry of Ghent and Godfrey of Fontaines over the unicity or plurality of substantial form in human beings, Scotus argued that a composite can be made up of a series of other entities as long as they are 'ordered' to a single form. The existences of the constituent parts of the composite are not simply added or aggregated; they have instead an essential order to one

another, and overall an essential order to the 'topmost' substantial form that gives existence to the whole composite, as Scotus insists. In this way the whole composite can be divided into act and potency, namely the final 'completive' (*completiua*) form and the remainder of the composite. And as with existences, so with the beings themselves: the unity of the composite is to be found in the union of its constituent elements through an internal essential order. The beings that are the matter and the form are distinct, but they are essentially ordered to one another. The upshot is that, for Scotus, the unity of the composite is preserved by the correct ordering obtaining among its component entities, which allows for essential and existential dependence or independence. In the particular case of the human mind/soul, it is not essentially dependent upon the composite of which it is a constituent part; whether it depends on the composite for its existence is a matter that has to be left to faith—natural reason cannot show that it continues in existence after death.

Some philosophers (the 'philosophical materialists') found Scotus's conclusion congenial, but his solution too dependent on his idiosyncratic metaphysics. They held instead that the immateriality and substantiality of the intellective soul could not be proved; some went so far as to hold that natural reason dictates the conclusion that the intellective soul is as material as the sensitive soul, and that the opposite is held only through faith, in the teeth of reason. This position was historically associated with Alexander of Aphrodisias, as reported by Averroës, who is said to have thought that thinking is the highest perfection that can be 'drawn forth' from matter. John of Jandun and William of Ockham subscribed to this philosophical materialism, holding that the intellective soul should be understood exactly like the sensitive soul, or at least it should be so understood were faith not to dictate otherwise.

Mental Architecture

The subpersonal functional mechanisms organized into psychological faculties interact with one another causally and with a degree of relative independence; the explanatory traction they provide is the foundation of the neo-Aristotelian synthesis. Thomas Aquinas takes the division of psychological faculties specified by the cross-cutting distinctions sensitive/intellective and cognitive/affective to be given by the primary object of a power or set of powers. That is, he takes the difference among faculties to be intensional, based on what different psychological powers are directed towards. He underwrites this intensional difference between psychological faculties with an extensional ('real') difference between (*a*) the soul and its faculties, and (*b*) between one faculty and another. This allows him to characterize each faculty as an independent subpersonal causal locus, defined functionally and linked to other faculties by an input-output stream, while maintaining that these really distinct faculties are all ultimately grounded in the same subject which is really distinct from them. The organization of mental life reflects the ontology of the mental.

Yet Aquinas is distressingly vague about the metaphysical status of psychological faculties: are they accidents, properties, objects in their own right? While he officially follows Albert the Great in speaking of them as 'properties', his arguments encourage thinking of them as accidents, and he leaves the details and implications of their real distinctness unexplored. Some later philosophers tried to spell out the details Aquinas left vague, with varying degrees of success.

Others, however, took a different approach to the issue, motivated by the desire to clarify the metaphysics underlying psychological explanation. Henry of Ghent, for example, argued that psychological faculties are real relational aspects of the soul—that is, ways in which the soul could be related to itself. On that score different psychological faculties would be distinct according to his 'intentional distinction': an intensional distinction that need not be underwritten by real distinctness. Even further along the same lines, Scotus proposed that there is only a formal distinction between (*a*) and (*b*). On his reading, psychological faculties, or at least major ones, are really the same as the soul and hence as one another, but they have different natures and hence elicit formally different kinds of acts (thinking, sensing, willing, and feeling). This is not just a matter of how we think about such faculties; they are genuinely different in reality. Scotus proposed that all of our psychological faculties, while formally distinct from one another, are combined together in something (the soul) which forges a unity out of them, which he dubbed "unitive containment." Critics were quick to point out that this names rather than solves the problem, which requires more than mere assertion that a real difference can be maintained by a formal or intentional distinction.

Perhaps in response to such criticism, William of Ockham rejects the claim that an intensional difference of itself can underwrite an extensional difference. He analyzes and argues at length against the positions taken by Aquinas, Henry of Ghent, and Scotus. For his own part, Ockham articulates a stringent condition for postulating a real distinction and argues that psychological acts, even acts of thinking and willing, fail to satisfy it. Hence, with a flourish of his razor, he concludes that there is only a conceptual distinction at work in (*a*) and (*b*): the difference between psychological faculties is just a matter of how we look at them, no more deeply rooted in the world than is the difference between concave and convex. (His view has the consequence that there is no real difference between cognitive and affective psychology.) Properly speaking, thinking something and willing it (say) are just two ways that one and the same thing, the soul, relates itself to its object.

Ockham's radical rejection of the mainstream view seems to have had some currency at Oxford in the first decades of the fourteenth century, numbering among its adherents Robert Holcot and William Crathorn. Other philosophers thought that Ockham's view failed to explain what called for explanation, namely why and how the soul relates itself to its object in such strikingly disparate ways; it is true enough as a fact of experience that it does so, and, in the eyes of many, these ways are different not because we think so but because they really are different—which lands us back where the debate began.