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Literature, Logic and Mathematics in the Fourteenth Century

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Abstract

This thesis assesses the extent to which fourteenth-century Middle English poets were interested in, and influenced by, traditions of thinking about logic and mathematics. It attempts to demonstrate the imaginative appeal of the logical problems called *sophismata*, which postulate absurd situations while making use of a stable but evolving, and distinctly recognisable, pool of examples. Logic and mathematics were linked. The ‘puzzle-based’ approach of late-medieval logic stemmed in part from earlier arithmetical puzzle collections. The fourteenth-century application of the ‘sophismatic’ method to problems concerned with what might now be called ‘Physics’ or ‘Mechanics’ sustained the symbiotic relationship of the two disciplines. An awareness of the importance of this tradition is perhaps indicated by the prominence of logical and mathematical tropes and scenarios in the works of three authors in particular: Geoffrey Chaucer, John Gower and the *Gawain*-poet. It is argued that, in the poetry of all three, what may loosely be called ‘sophismatic tropes’ are used to present concerns that the poets share with the logical and mathematical thought of their time. Certain themes recur, including the following: problematic promises; problematic reference to non-existent things; problems associated with divisibility, limits and the idea of a continuum; and, most importantly, problems focused on the contingency, or otherwise, of the future. The debate over future contingency was one of the fiercest scholastic controversies of the fourteenth century, with profound implications for both logical and theological thought. It is suggested here that the scholastic debate about future contingency has a visible impact on Chauntecleer’s prophetic dream in the Nun’s Priest’s Tale, Troilus’s apparent determinism in *Troilus and Criseyde*, Gower’s presentation of causation in the *Confessio Amantis*, and the *Gawain*-poet’s treatment of covenants. The conclusion reached is that fourteenth-century logical and mathematical texts had a significantly wider cultural effect than is generally recognised.

Table of Contents

<u>List of Illustrations</u>	6
<u>List of Abbreviations</u>	7
<u>Declaration</u>	8
<u>Statement of Copyright</u>	9
<u>Acknowledgements</u>	10
<u>Dedication</u>	11
<u>Preface</u>	12
<u>Introduction: Logical Ideas and Middle English Literature</u>	13
Logic and the Imagination	13
Logic in Literary Criticism	19
Building the World of Logic	25
The World of Logic and its Inhabitants	32
From Logic to Literature	35
Logic and Mathematics	42
Fourteenth-Century Logicians	45
Robert Holcot	46
Thomas Bradwardine	48
William Heytesbury	50
John Buridan	52
John Wyclif	54
Ralph Strode	57
The Development of the Controversy over Future Contingency in the Fourteenth Century	59
<u>Chapter 1: Mathematics and Contingency in <i>The Canterbury Tales</i></u>	73
Chaucer and the Logicians	73
The Summoner's Tale	77
The Summoner's Tale and Ars-metrike	77
The Summoner's Tale and Insolubles	85

Empty Utterances	92
The Nun's Priest's Tale	100
The Bradwardine Connection	100
Holcot's Fabulous Logic	111
Holcot's Wisdom Commentary	116
A Holcotian Reading of the Nun's Priest's Tale	122
<u>Chapter 2: Logic and Determinism in <i>Troilus and Criseyde</i></u>	133
'Terms of Physik'	133
The Frenzy to Measure	137
The Heat of Love	139
The Indivisibilist	147
Wyclif, Chaucer, Strode	150
Reprobation in the 'Responsiones'	158
The Logic of Reprobation	164
Troilus: The Paradox in Practice	169
Strange Beginnings	174
The Departing	180
The End of Troilus	183
<u>Chapter 3: Causation and the Future in the <i>Confessio Amantis</i></u>	186
Chaucer's Dedicated Friends: Gower and Strode	186
The Philosopher's Poem	188
Philosophical Gower	195
Cause and Contingency in the <i>Confessio</i>	198
Time for a Change: 'Asymmetric' Logic and the <i>Confessio</i>	203
Growing Old Gracelessly: Ageing in the <i>Confessio</i> and the <i>De vetula</i>	207
Dicing with Love? Chance in the <i>Confessio</i> and the <i>De vetula</i>	211
The Rise of the Probable: The <i>De vetula</i> in Context	217
A Risky Business: Commercial Probabilities	221
The Influence of the <i>De vetula</i>	223
Reading the Odds: Chance and Determinism in the <i>Confessio Amantis</i>	229
This or That: Chance and Choice in the <i>Confessio Amantis</i>	231

<u>Chapter 4: Extreme Promises and Paradoxes in the Works of the <i>Gawain</i>-poet</u>	240
<i>Sir Gawain and the Green Knight</i>	240
Tied up in Knots	240
A Sophistical Supper	245
<i>Sophismata</i> of Mutual Action and the Beheading Game	250
The Limits of Logic and Law	253
The Limits of ‘Trawþe’	256
The Man Who Wasn’t There	260
<i>Pearl</i>	265
The Hidden Gem	265
Getting a Grip	271
Measuring Merit	273
<i>Patience</i>	278
A Problematic Prophecy	278
A Point of Principle	285
The Sophistication of the <i>Gawain</i> -poet	288
<u>Conclusion</u>	291
<u>Appendices</u>	294
Appendix 1: A Selection of Sophismatic Propositions from the 14 th Century	294
Appendix 2: Table: Categorematic terms in Buridan’s <i>Sophismata</i>	296
Appendix 3: An illustration of the ‘wolf, goat, cabbage’ puzzle (Ormesby Psalter)	297
<u>Bibliography</u>	298
Reference Sources	298
Primary Sources	299
Secondary Sources	308
List of Manuscripts Referred To	324

List of Illustrations

1. An illustration depicting the 'wolf, goat, cabbage puzzle', in the Ormesby Psalter (Oxford, Bodleian Library MS Douce 366, fol. 89^r).

List of Abbreviations

AHDLMA	Archives d'histoire doctrinale et littéraire du moyen âge
BL	British Library
EETS	Early English Text Society
ES	Extra Series
CUP	Cambridge University Press
DNB	Dictionary of National Biography
JEGP	Journal of English and Germanic Philology
MED	Middle English Dictionary
MLN	Modern Language Notes
NS	New Series
ODNB	Oxford Dictionary of National Biography
OED	Oxford English Dictionary
OLD	Oxford Latin Dictionary
OUP	Oxford University Press
P	Press
PIMS	Pontifical Institute of Mediæval Studies
PMLA	Publications of the Modern Language Association
PL	Patrologia Latina
RES	Review of English Studies
SC	Short Catalogue
SEP	The Stanford Encyclopaedia of Philosophy
U	University
UP	University Press
YES	The Yearbook of English Studies

Declaration

This work has been submitted to the University of Durham in accordance with the regulations for the degree of Doctor of Philosophy. It is my own work, and none of it has been previously submitted to the University of Durham or in any other university for a degree.

Statement of Copyright

The copyright of this thesis rests with the author.

No quotation from it should be published without the author's prior written consent and information derived from it should be acknowledged.

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Dedication

For Siân and Felicity.

Non nobis Domine...

Preface

Unless otherwise specified, all translations are my own.

All references to Chaucer are taken from *The Riverside Chaucer*, unless otherwise specified. Line numbers will be given in the text.

All Biblical quotations are taken from the Vulgate text as given by Douay-Rheims online, and follow the Vulgate numbering system. The Douay-Rheims translations are used throughout.

For the sake of space, all references are given in short form. Full bibliographical information for each item can be found in the bibliography.

INTRODUCTION:

LOGICAL IDEAS AND MIDDLE ENGLISH LITERATURE

Logic and the Imagination

There lies hidden, as if through a low door in the wall of late-medieval scholasticism, an enchanted world, a paradise of all things imaginary and absurd.¹ The landscape seems ordinary enough at first, but on closer inspection one might find unlikely features, such as mountains of gold and uncrossable rivers. Roses used to grow plentifully here: but they have all died, and the people of that world struggle to remember them. The inhabitants themselves are even stranger than the landscape. The land is populated by a breed of chameleon men, who change colour over time and depending on their actions. Some of the men remain sedentary, some walk, but most seem to spend their time running as fast as they can, turning white in the process. Socrates lives there, as does Plato, but they squabble incessantly and sometimes even fight. Aristotle also drops by occasionally, to walk his dead horse. Many of the other inhabitants are less well

¹ The low door in the wall is, of course, a famous image long associated with Oxford: it is borrowed from the literary work of a later Oxford logician, Charles Dodgson (Lewis Carroll); Evelyn Waugh re-uses it in his description of University life in *Brideshead Revisited*. If the medieval *sophismata* create a 'Wonderland' world for the modern reader, it is only because Dodgson himself stands in the long tradition of the logical imagination. See Carroll, *Annotated Alice*, p. 15 and Waugh, *Brideshead Revisited*, p.40.

known and bear common medieval names: Richard, William, Walter, Robert, John and Peter. Yet, quite conventionally, presentations of this bizarre society focus on the upper echelons, and the Pope and the King are frequent protagonists in any action. Some inhabitants have very unusual names: an imaginary visitor to this world might witness a child being christened 'Baf', just to see if that would make the word mean anything. Family relations are important, but often problematic. One might encounter one's father or brother at every turn, yet never recognise them: perhaps because one's father is down on all fours, parading around in a donkey skin, or because one's brother actually is an ass.

Although there are plenty of other animals native to the land (horses, dogs and goats among the most common), the zoology of the country tends to focus on more sinister and marginal creatures: the invisible chimera and the lurking Hircocervus or 'goatstag'. A lucky visitor might even catch a glimpse of the flying donkeys with their beautiful sets of wings. Asses there can do extraordinary things and they are often endowed with human characteristics: some are servants but many are masters; they can talk; they love a good laugh; but they do reserve the exclusive right to bray, their defining characteristic. God himself is an ass, or could be if he wanted to be: just one of the many theological oddities of this society, where atheism, polytheism, pantheism and Monarchianism are all debated quite openly as intellectual possibilities. Most worryingly of all, the Antichrist is almost ubiquitous. One might find him walking, or going for a run with the others, or preaching, or laughing, or even being born. In fact, being born is one of the

commonest activities for inhabitants of this bizarre world, perhaps the most popular after dying and, remarkably, being resurrected.²

Every significant element of the above description is taken, not from any conventionally literary source, but direct from the logical writings of the fourteenth-century scholastics, and more specifically from a group of treatises on logical puzzles and paradoxes known as the *sophismata*. A sophism was essentially a stimulus for debate-based learning in the disputation of the late-medieval schools. The master would present a proposition, usually taken from a fairly standard list of recognised examples, allowing one student to argue one side and one student the other, before the master finally gave the ‘definitive’ solution. Generally speaking there were three types of ‘sophismatic’ proposition by the middle of the thirteenth century.³ First, there were the propositions known by the general term, *sophismata*: propositions seeming to follow from well-established principles, which yet are somehow unacceptable or present special problems, used for testing logical rules. Then there were two further subsets. There were propositions known specifically as *impossibilia*: propositions whose contradictory is evident, where the intended exercise was to demonstrate the impossible, in order to help students recognise logical flaws. Finally, there were the propositions known specifically as *insolubilia*: here an apparently *valid* form of reasoning produces a proposition which implies its own contradictory.⁴ Generally speaking, as Curtis Wilson puts it, the ‘essential characteristics of a sophistical argument

² See the ‘Selection of Sophismatic Propositions’ in Appendix 1.

³ Throughout this thesis, I use the coinage ‘sophismatic’ as the adjectival form of *sophismata*; ‘sophistical’ is somewhat misleading in modern English.

⁴ Scott, ‘Introduction’, in Buridan, *Sophisms*, pp. 4-5.

were its subtlety, its lack of accord with common sense, its seeming to be what it was not'.⁵

The sophism became the basic cultural and intellectual building block in the teaching of logic in the fourteenth century. Occasionally *sophismata* were merely descriptive statements that were interesting solely for their logical properties; for example, the proposition that 'No negative proposition exists'. On the whole, however, there was much greater scope for inventive fantasy. The so-called 'thought-experiments' which late-medieval philosophers used to test logico-scientific rules proceeded, in their own words, 'secundum imaginationem' ('according to imagination'). As Curtis Wilson puts it, 'the province of the [fourteenth-century] logician is the entire range of imaginable cases and problems'.⁶ It has been the habit of historians of science and philosophy either to cleanse this term 'imaginatio' of its post-Romantic connotations, or else simply to ignore them: these 'imaginatio' were not daydreams but rigorous, intellectual investigations.⁷ Yet the laudable insistence on maintaining a precise academic vocabulary has led to the obscuration of the fact that the composers of the

⁵ Wilson, *Heytesbury*, p. 4.

⁶ Wilson, *Heytesbury*, p. 25.

⁷ For a concise summary of the understanding of the term 'imagination' from the early modern period onwards, see *Oxford Dictionary of Literary Terms*, p. 165; see also Coleridge, *Biographia Literaria*, I, chapter 4, esp. pp. 49-51. The phrase 'secundum imaginationem' is often glossed simply as 'hypothetical': see, for example, Tachau, 'Logic's God' p. 254; as Curtis Wilson himself puts it, 'The only requirement for an imaginable case or distinction or problem is that it should not involve a formal logical contradiction': *Heytesbury*, p. 25. For an interesting discussion of 'ymaginacioun' in medieval 'psychological' and literary discourse, see Burnley, *Chaucer's Language and the Philosophers' Tradition*, pp. 103-115. His definition of 'ymaginacioun' is 'the envisaging of things which are not, or which may never appear before the eyes, such as green knights, golden hills, or unicorns' (p. 105). Burnley's interesting mixture of fourteenth-century literary ('green knight') and logical examples ('golden hills': see Holcot, *Seeing the Future*, p. 67) itself illustrates the interplay of literary and logical conceptions of 'imagination'. Burnley's analysis does lack, however, a precise understanding of the process of formulating *sophismata* 'secundum imaginationem' and, as a result, his readings of Chaucer's use of the term tend to differ from mine (see my discussions of 'ymaginacioun' in the Summoner's Tale and the Nun's Priest's Tale in Chapter 1).

sophismata did indeed enliven their problems with an imaginative creativity akin to, and no less daring than, that of medieval poets.

It might be imagined that the *sophismata* typically took the form of self-consciously logical statements such as the one given above. Yet, more often than not, both the problem-sentences themselves and the other propositions used as examples in the discussion actually took the form of little units of narrative. As Eugene Vance puts it,

If an argument is a sequence of propositions, so too, a kernel story is a discrete discursive unit made up of a sequence of narrative statements or events. Like a proposition, a narrative event is composed minimally of a noun and a verb, with the verb predicating some perceived state or happening in time.⁸

These miniature stories appear and disappear quite suddenly within the wider text of the logical treatise: ‘A man runs’; ‘The King sits’; ‘A horse has died’. Although at times elaborate scenarios are devised in order to make these seemingly simple statements contextually problematic, usually no explanation is given for the action described. Since their authors tend to work from a wide but limited repertoire of conventional examples, medieval treatises on logic can give the illusion that these tiny blocks of narrative are the remnants of some greater, integral plot, of which only disjointed threads can be glimpsed behind the remorseless argument of the logical voice.

Since the bank of examples used in logical treatises was, at least by the fourteenth-century, highly conventionalised, the literary experience of reading these works can be accompanied by a sense of déjà-vu. The subtleties of logical discrimination that mark each text out as truly individual efforts are masked, for

⁸ Vance, *Topic to Tale*, p. 20.

the literary reader, by the collocations of familiar units of narrative; the sensation may be compared to that felt by readers of texts in the English alliterative tradition, or even by readers of Homer, growing used to the ‘formulas’ that such texts employ.⁹ Although these collocations of narrative units do not form ‘plots’ within the logical treatises themselves, the combination of such tropes in other, literary texts would undoubtedly have been striking to those readers familiar with the conventions of the *sophismata*. It is the literary influence that such logical texts might have exerted upon writers of the late fourteenth century that is the theme of this thesis.

First, therefore, this thesis will introduce the ideas, forms, central figures and core concerns of fourteenth-century logic, finally focusing in a little more detail on the logico-theological problem of future contingency. Chapter 1 will deal with two of *The Canterbury Tales*, exploring the arithmetical and logical interests of the Summoner’s Tale, and the logico-theological interests of the Nun’s Priest’s Tale. Chapter 2 will explore the possible influence upon *Troilus and Criseyde* of the *sophismata physicalia* (a range of *sophismata* which deal with topics that might now be counted part of Physics or Mechanics) and will attempt to draw a connection between such problems and the issue of determinism in the narrative. Chapter 3 will investigate the interplay of different logico-mathematical explanations of causation in Gower’s *Confessio Amantis*. Finally, Chapter 4 will discuss the application of logico-mathematical paradoxes to moral and theological problems in the works of the *Gawain*-poet.

⁹ For two of the most influential discussions of formulas in alliterative poetry, see Turville-Petre, *The Alliterative Revival*, pp. 83-92; and Spearing, *The Gawain Poet*, pp. 20-23. The most influential discussions of the equivalent feature of Homeric poetry are, of course, Parry, ‘Studies in the Epic Technique’, especially pp. 272-79; and Lord, *Singer of Tales*, p. 30 onwards.

Logic in Literary Criticism

The idea that late-fourteenth-century poetry, and notably that of Geoffrey Chaucer, is interested in, and influenced by, the philosophical currents and controversies of its time is by no means a novel one. Chaucer studies have often paid attention to late-medieval astronomy, medicine, moral philosophy and metaphysics.¹⁰ There has also been widespread interest in what has been broadly designated ‘dialectic’, generally in contradistinction to ‘rhetoric’. Nevertheless, the use of the term ‘dialectic’ has become, in some ways, problematic. In its broadest, and commonest, usage, ‘dialectic’ has too often been merely a convenient shorthand for any treatment of ‘binary opposition’.¹¹ There are, indeed, very good etymological and, since Hegel, modern philosophical reasons for using the term in this way.¹² However, as with the term ‘imagination’, more critical precision is needed when dealing with medieval thought. It is at least inconvenient that many critics of medieval literature should mean by a technical term in widespread currency in the Middle Ages something different from what their authors meant by it; and especially so, given the probable anachronism that will attach itself to the term in the minds of many of their own readers. In particular, according to Aristotle, ‘dialectic’ is to do with a form of *disputation*: or as Robin Smith puts it, Aristotle’s dialect is ‘argument directed at another person by question and answer and consequently taking as premises that other person’s

¹⁰ See, for example, Walter Clyde Curry, *Chaucer and the Mediaeval Sciences*; Fox, *The Mediaeval Sciences*; Manzalaoui, ‘Chaucer and Science’; North, *Chaucer’s Universe*; Tasioulas, ‘Astronomy’; Utz, ‘Philosophy’; Blamires, *Chaucer, Ethics, and Gender*.

¹¹ See, for instance, Constance Brittain Bouchard’s broad treatment of the term: ‘*Every Valley*’, p. 19: ‘the most important use of dialectic [...] was the resolution of contradictions’. See also Catherine Brown, *Contrary Things*, p. 37: ‘dialectic teaches how to manage contradiction’.

¹² For a concise explanation of the role of Hegel’s ‘dialectic’, see Soll, *Hegel’s Metaphysics*, pp. 139-40.

concessions’;¹³ perhaps something rather like the medieval *disputationes de obligationibus* (discussed further below). Of course, disputation is often concerned with oppositions, and sometimes binary oppositions. Thus in some recent criticism, the term ‘dialectic’ is beginning to be used not merely to suggest the tension of two contraries, but the active interest in and use of *disputational* forms in literature.¹⁴ Nevertheless, the term ‘dialectic’ will generally be avoided in the following analysis for two reasons. First, there is the simple matter of clarity. Second, this thesis is concerned with ‘logic’ in terms of its *various* manifestations in written treatises and literary texts. The use of ‘dialectic’ tends, in the minds of some readers, to reduce the fertile multiplicity of these texts to a single principle of binary opposition. It seems *a priori* unlikely that such a principle is the core value behind later medieval *logical* (and especially *sophismatic*) disputation, which tends, on the contrary, to rejoice in multiplying possibilities. Thus when critics like William S. Wilson declare that ‘the two words [dialectic and logic] mean the same thing for this [the late-medieval] period’, a modern reader is forced either to misunderstand how actual late-medieval logical, and particularly sophismatic, texts function, or somehow to purge the term

¹³ Smith, ‘Aristotle’s Logic’, in *SEP*. Smith accepts that elements of his interpretation of Aristotle’s view of dialectic ‘would not be accepted by all scholars’. The most important passages of Aristotle in this regard are found in Book I of the *Topics*: 100a-108b, trans. by Pickard-Cambridge, pp. 167-181.

¹⁴ See, for instance, Hunt, ‘Aristotle, Dialectic and Courtly Literature’. In many ways, Hunt typifies the problematic usage of the term ‘dialectic’ that I have been discussing: he continues to emphasise the importance of contraries in courtly literature, and adduces Abelard’s ‘Sic et Non’ as the *locus classicus* of medieval dialectic. He even uses the term ‘dialectic’ as a synonym for ‘opposition’ in places (for example, he talks at different points of ‘the opposition of *los-repos*’ (p.110) and ‘the dialectic of *los-repos*’ (p. 114), seemingly without distinction); but his work does at least focus on disputational forms in courtly literature, and it is this focus that makes his analysis rather more fruitful. Sarah Kay is an example of a critic who takes even greater care with the terms ‘dialectic’ and ‘contradiction’. See *Courtly Contradictions*, esp. pp.11-25. She also briefly discusses, in relation to Troubadour poetry, the Liar paradox, which I make reference to a number of times in this thesis (*Courtly Contradictions*, pp. 133-142).

‘dialectic’ of many of the connotations with which it is now often associated.¹⁵ Furthermore, my own interest lies not in defining any general *Zeitgeist*, but in showing how particular exemplary scenarios, images and controversies together define fourteenth-century logic and logical theology.

Another term around which much previous scholarly and critical activity has centred is ‘nominalism’. An interest in fourteenth-century ‘nominalism’ has been the catalyst for a wealth of useful, at times even ground-breaking, research. However, it is fair to say that literary criticism of the last century has not always managed to avoid what Gordon Leff described as ‘the trap which modern historians have been so keen to avoid, of regarding medieval thought as the struggle between nominalism and realism’.¹⁶ There has thus been a tendency within twentieth-century literary criticism to treat ‘nominalism’ both as uniform in itself and as totalising within medieval thought after Ockham. As a result, too often critics have read literary texts with the avowed aim of discovering in them a ‘nominalist’ influence and, if disappointed, have disregarded the range of other ways in which their authors may have been interacting with contemporary logical philosophy.¹⁷ Both errors are traceable even in so great a scholar as Alastair Minnis himself: for instance, in his article, ‘Looking for a Sign: The Quest for

¹⁵ William S. Wilson, ‘Scholastic Logic’, p. 181.

¹⁶ Leff, *Medieval Thought*, p. 259.

¹⁷ See, as just one of many possible examples of the tendency to treat ‘nominalism’ somewhat monolithically, Steinmetz, ‘Late Medieval Nominalism’. Alcuin Blamires complains of a similarly simplistic and ‘leading’ tendency in regard to Chaucer’s relationship with ‘Lollardy’, by which critical readings find whatever evidence they can (however slight) to support ‘an ideological preoccupation ascribed a priori to the poet’: ‘The Wife of Bath and Lollardy’, p. 224. Steinmetz also uses the term ‘dialectic’ in the sense of ‘binary opposition’ discussed above, writing, for instance, of ‘the dialectic of the *potentia dei absoluta* and the *potentia dei ordinata*’ (‘absolute and ordered power of God’) (p. 39). A recent article by Jelena Marelj on *Troilus and Criseyde* demonstrates that the appetite for such an approach is by no means abating. See ‘The Philosophical *Entente* of Particulars’. Marelj also speaks of ‘a dialectical distinction between God’s absolute and ordained powers’, illustrating that this term too remains widely used in its imprecise sense (p. 213).

Nominalism in Chaucer and Langland'. As Minnis observes, the term has been 'stretched in many ways [...] which can be both confusing and sensationalizing', far beyond its currency with fourteenth-century thinkers such as Ockham, for whom it would have denoted a particular 'language-theory'.¹⁸ In this thesis, the term 'nominalism' will be used specifically to denote the insistence that words refer not to any real universals but rather to singular beings; that the word 'man' signifies not a universal abstract of what a man is, but simply all actual men.

Yet Minnis himself accepts, and goes on to use, 'nominalism' as he puts it '*improprie and secundum communem usum loquendi*, as found in much recent criticism'. In this way, he both recognises and exacerbates the problematic generalisation of the term. He attempts to demonstrate the 'affinities [of Chaucer's work] with views expressed in twelfth-century treatises on [...] logic' but eventually concludes that 'the prospects of identifying Chaucer as some sort of Nominalist by this route are remote and unrewarding'.¹⁹ The apparent similarities between late-medieval nominalist theories of language and modern structuralist approaches have perhaps encouraged attempts at finding ways in which Chaucer can be seen as philosophically ahead of his time. The real question is not whether Chaucer was 'some sort of Nominalist', but what, if any, was the nature of Chaucer's interest in fourteenth-century philosophy (including logic), and what are the consequences of that interest for critical readings of Chaucerian texts. Approaching the question in this way, there is no need to discard Chaucer's possible interests in logic simply because it does not further the search for Chaucer's presumed 'nominalism'.

¹⁸ Minnis, 'Looking for a Sign', p. 144.

¹⁹ Minnis, 'Looking for a Sign', p. 144.

Literary critics have also tended to seek contexts for fourteenth-century literature only in twelfth- and thirteenth-century scholasticism, rather than in the scholastic traditions of the fourteenth century itself.²⁰ Minnis, for instance, has explored the possible relation between Chaucer's writings and 'twelfth-century treatises on terminist logic' (a school of (usually) nominalist logic which focused on the significance of the individual terms within propositions).²¹ This move seems especially counter-intuitive given the particular development of terminist logic in the later Middle Ages. After its success in the twelfth and early thirteenth centuries, terminism was superseded by a new approach known as 'modism', which focused logical analysis on the different *ways* in which terms or utterances can signify. In the first half of Chaucer's own century, terminism experienced a sudden and 'mysterious' resurrection. This terminist revival was predominantly English, and thus it provides, much more than its twelfth-century counterpart, an obvious context for Chaucer's possible interest in logic.²²

Over the last decade or so, a number of critics have begun to approach Chaucer's interaction with the logical thought of his own century with more precision and daring. Among them is Kathryn Lynch, whose study of Chaucer's logical and broader philosophical play in his dream visions is closer to the sort of analysis that this thesis attempts. Lynch's work was in many ways groundbreaking and has undoubtedly contributed to a marked increase in the amount of

²⁰ This bias in favour of older texts is undoubtedly an unfortunate consequence of the emphasis on the twelfth century as a period of radical intellectual development, following the work of Charles Homer Haskins: see his *The Renaissance of the Twelfth Century*; see also R. N. Swanson, *The Twelfth-Century Renaissance*, esp. pp. 207-14.

²¹ In late-medieval logic, the 'terms' of a proposition are the categorematic words or phrases that make up the subject and predicate of that proposition (see Chapter 2 for a fuller explanation). In this thesis, I also at times discuss the 'tropes' and 'images' of logical discourse, which are merely logical 'terms' treated in a literary aspect.

²² Spade, 'Late Medieval Logic', p. 403.

scholarship directed towards Chaucer's logical, and even sophismatic, interests. However, she does not always entirely escape the temptation towards some of the totalising frameworks I have described above;²³ nor is she really concerned with the analysis of specific logical problems and their manifestation in the form of sophismatic 'imagery'. She sometimes notes in passing a similarity of imagery (for instance, the use of the common sophismatic terms 'dog', 'white' and 'black' in the *Book of the Duchess*); yet on the whole Lynch's interest lies in logical modes of thought as general guides to, or structural underpinnings of, a broader interpretation of Chaucer's poems, rather than in the precise manner in which those sophismatic problems are alluded to or incarnated in literary language. Here, for the reasons set out below, Lynch could have been even more specific and even more daring than she is. Her work is also limited to Chaucer, and more particularly to his dream visions, touching only briefly on *The Canterbury Tales* and *Troilus and Criseyde*. More recently, Peter W. Travis has developed this interest in the logical dimension of Chaucer's work, focusing explicitly on specific sophismatic tropes that feature prominently in certain texts: for instance, the importance of 'white' in *The Book of the Duchess*, and of the idea of running in the Nun's Priest's Tale.²⁴ There is, however, much more work to be done to build such shared 'images' into a convincing and substantive reading of each text as a whole. My thesis will therefore avoid totalising frameworks like those implied by 'dialectic' and 'nominalism', concentrating instead on the particular textual manifestations of logical thought in the fourteenth century. In this way, it

²³ See, for instance, her rather simplistic description of dialectic in terms of 'sic et non' (*Visions*, p. 71). She also confesses to 'a preference for seeing Chaucer as a nominalist, or as something of a skeptic' (p. 15).

²⁴ See Travis, 'White'; and *Disseminal Chaucer*, pp. 254-57.

will attempt to generate convincing readings of literary texts by taking an essentially inductive approach, working primarily from literary detail rather than deducing authorial concerns from broader cultural premises.

Building the World of Logic

Apart from the *sophismata* themselves, there are two other forms of logical discourse related to the *sophismata* that are significant sources of logico-literary tropes and topoi in this period. Both are intrinsically related to the sophistic method, since both focus on the means of ‘generating’ or deriving *sophismata*. They are, as it were, sophism-factories, and as such they not only provide another valuable source of the sort of problems and ‘images’ that fourteenth-century logicians manufactured, but also shed light on the structures of thought that underlie those productions.²⁵

The first of these related forms of logical discourse is the treatise *de consequentiis*, a distinctively English genre in the fourteenth century.²⁶ Works of this kind discuss the logic of *consequence* (that is, how one may validly reason from a premise to a conclusion), usually with numerous examples. Consequence is effectively the ‘glue’ that holds together the syllogism, which is foundational to Aristotelian logical thought and is therefore essential to the disputational method

²⁵ As an illustration of this point, Stephen Read points out that Bradwardine recurrently uses the technical terminology of the treatises *de obligationibus* (which I discuss below) throughout his treatise on *Insolubilia*. See, ‘Introduction’, in Bradwardine, *Insolubilia*, pp. 45-46.

²⁶ ‘From around 1300 and throughout the fourteenth century we meet a considerable number of works entitled *De consequentiis* (On consequences). It is remarkable, however, that the overwhelming majority of these texts is of British origin’ (Green-Pedersen, ‘Early British Treatises’, p. 285). Green provides an interesting discussion of the possible reasons why this genre of logical treatise ‘seems to spring out of the earth in England rather suddenly around 1300’ (p. 290).

of the later Middle Ages.²⁷ The analysis of what constitutes a valid consequence naturally involves the means of distinguishing it from an invalid one, supported by examples of each, and it is here that the treatises *de consequentiis* most resemble collections of *sophismata*. One reason for this is that they make use of the same common pool of example propositions, so that from a purely literary perspective, the two genres of text have much the same effect upon the imagination.

Yet there is another important, structural reason for studying them in conjunction with each other. Strictly speaking, a sophism is a single problematic proposition, such as ‘You will throw me in the water’, and the other information, which makes the proposition problematic, is merely much-needed context, known as the *casus*.²⁸ The logical interest of many of the *sophismata*, however, lies primarily in the invalid reasoning that is used to justify them. Take, for example, William Heytesbury’s collection of *Sophismata asinina*, around forty *sophismata* identical in form (‘Tu es asinus’), yet each justified by a different syllogism, such as the following:

- 1) Omne animal si ipsum est rudibile est asinus.
 - 2) Tu es animal si tu es rudibilis.
 - 3) Ergo tu es asinus.
- Consequentia patet.

- 1) Every <animal, if able to bray>, is an <ass>.
- 2) <You> are an <animal, if able to bray>.
- 3) Therefore <you> are an <ass>.

²⁷ See Aristotle, *Prior Analytics*, I, 24a-52b, trans. by Jenkinson, pp. 39-84.

²⁸ See Spade’s neat definition of *sophismata* as ‘puzzle-sentences’: ‘Late Medieval Logic’, p. 402. Edith Sylla, on the other hand, allows the term ‘sophisma’ to cover ‘the whole development’ of the discussion and solution, referring to the problematic proposition itself as ‘the “sophisma sentence”’. See, ‘Oxford Calculators’, p. 559. See below for a discussion of the *casus* that turns the proposition, ‘You will throw me in the water’, into a formal *insolubilium*.

The consequence is clear.²⁹

Here Heytesbury dresses up his sophism ('you are an ass') as the conclusion of an apparently impeccable syllogistic model – in fact, the most basic and obvious of all the syllogistic models derived from Aristotle, known in the Middle Ages as the 'Barbara' mood:³⁰

- 1) Every B is A.
- 2) Every C is B.
- 3) Therefore every C is A.³¹

The question for Heytesbury is: what is wrong with the syllogism? The answer here is, of course, that 'animal, if able to bray' should not be taken together as one unit, but as two separate units. Therefore 'animal, if able to bray' is actually able to mean different things in Propositions 1 and 2.³²

²⁹ Heytesbury, *Sophismata asinina*, p. 414 (Sophism 19). I have set out Heytesbury's prose in numbered bullet points for the sake of clarity. My translation is somewhat inexact, in order to preserve the apparent force of the logic.

³⁰ As a further example of the imaginative and literary fecundity of medieval logic, the name 'Barbara' is the first of a series of mnemonics given by medieval logicians to the nineteen ordinary syllogistic 'moods' or models. The names are packed with meaning. 'Barbara', for instance, takes the first consonant of the alphabet because it is the first 'mood' of the first 'figure' or group of syllogisms; its vowel pattern is dictated by the fact that each of its three sentences is a universal affirmative ('every ... is ...' etc), which was given the designation class 'A'. The rules dictating the mnemonics of the less basic 'moods' are rather complex. The mnemonic names were also formulated into a verse in dactylic hexameter to aid the memory of their groupings. See Spade, *Thoughts, Words and Things*, pp. 21-25. Spade cites early versions of the mnemonic verses, including one in William of Sherwood's works: see, "Introductiones in logicam", p. 246 (§ 3.2 lines 4-7); *William of Sherwood's Introduction to Logic*, p. 66. Another example that Spade does not cite is found in John Buridan's *Summulae de dialectica*, 5. 2.1-5. 2.4. For an edition of the section of the *Summulae* in question, see Buridan, *Summulae de syllogismis*, pp. 25-32. For an English translation, see Buridan, *Summulae de dialectica*, trans. by Klima, pp. 319-24.

³¹ As given, this syllogistic model follows the Boethian evolution of the Aristotelian syllogism, substituting the copula 'est' where Aristotle had 'belongs to', and thus inverting the order of the 'major' and 'minor' terms, which is why the letters seem mixed up. For a concise discussion of how Boethius both preserved and developed Aristotle's approach for the Middle Ages, see Lagerlund, 'Medieval Theories of the Syllogism', in *SEP*. See also Boethius, 'De syllogismo categorico' and 'Introductio ad syllogismos categoricos' in *PL* (64); and 'De hypotheticis syllogismis'.

³² I adapt Heytesbury's argument slightly to make it more accessible and applicable to the English translation, which can provide no satisfactory counterpart to 'ipsum'. For the original, see Heytesbury, *Sophismata asinina*, p. 414.

Heytesbury's sophism ('You are an ass') is manufactured by 'hijacking' a valid line of consequential reasoning. Treatises *de consequentiis*, such as that of Ralph Strode, the man who is probably the dedicatee of Chaucer's *Troilus*, provided lists of rules determining valid and invalid consequences. *Sophismata* and even *insolubilia* could be created by using the accepted rules of consequence: in fact, to do so was a means of testing or demonstrating those very rules.³³ One example is the famous paradox found in a fourteenth-century treatise generally referred to as the work of Pseudo-Scotus (due to a former erroneous attribution to Duns Scotus):

God exists: hence this argument is invalid.³⁴

The question is, is the argument valid or invalid? If the argument is *valid*, then since the premise is true, the conclusion must also be true, because if you argue *validly* from a true premise, you reach a true conclusion. If the conclusion is true, however, the argument must be *invalid*, since that is merely what the conclusion says. Now the definition of an *invalid* argument is one in which it is possible that

³³ Walter Burley, for example, in his own discussion of *consequentiae* in his *De puritate artis logicae*, 'proves' syllogistically that 'the uglier (*quanto magis turpis*) someone is, the more attractive (*tanto magis pulcher*) he is': 'The uglier you are, the more you embellish yourself; but the more you embellish yourself, the more attractive you are; therefore, from the first to the last, the uglier you are, the more attractive you are'. Burley uses this, and other similar '*sophismata*' (as he calls them) to demonstrate how one must take great care in using 'the consequent in a preceding conditional' as 'the antecedent in the succeeding conditional'. In this case, the two are not, in fact, identical (one uses 'tanto', the other 'quanto'). See, 'Consequences', p. 287.

³⁴ Taken from Read, 'Self-Reference and Validity Revisited' (2010), p. 185; I have slightly revised the format of this quotation for the sake of clarity. See also, Boh, 'Consequences', pp. 308-309; and Read, *Thinking about Logic*, pp. 154-55 and p. 170. As an example of the perils confronting a reader attempting to get to grips with the literary features of late-medieval logical texts, see Roy Sorensen's re-presentation of the Pseudo-Scotus paradox as 'Squares are squares, therefore, this argument is invalid' (Sorensen, 'Epistemic Paradoxes', in *SEP*). Sorensen cites for his translation, without qualification, an article by Stephen Read ('Self-Reference and Validity', 1979), even though Read himself gives the initial clause as 'God exists' (see p. 266). However, I note below (Chapter 4) a certain looseness in some of Read's own translations in other instances. See the Conclusion to this thesis for further brief comments.

the conclusion should be false even though the premise were true. In this case, however, if the argument is *invalid*, then the conclusion cannot possibly be false (because the conclusion agrees that the argument is invalid). So in this case the premise is true and the conclusion must necessarily be true and cannot possibly be false. Therefore the argument is *valid*. So if the argument is valid, then it must be invalid; but if it is invalid, then it must be valid. This paradox is a medieval forerunner of the famous modern problem known as Curry's Paradox.³⁵

Thus, treatises *de consequentiis* both provide the means of understanding the structural defects of thought underlying certain kinds of *sophismata*, whilst at the same time securing the syllogistic structures by which ingenious logicians could 'build' new *sophismata*. Literarily, treatises *de consequentiis* read very much like collections of *sophismata*, using the same basic verbal tropes; structurally, they are vitally important to the process of creating new *sophismata*.

Another sort of treatise related to the *sophismata* concerned the *disputatio de obligationibus*, a formal exercise in which an opponent and respondent entertained as fact, by agreement and for a set time (the *tempus obligationis*), something that might otherwise be open to doubt or even patently false. The sentiment behind the discussion, therefore, was something like, 'Let's pretend

³⁵ For a brief discussion of Curry's Paradox in the context of semantic paradoxes generally, including those central to medieval logic, see Read, *Thinking about Logic*, pp. 161-63. See also Haskell Curry, 'The Inconsistency of Certain Formal Logic'. For perhaps the most famous presentation of the paradox, in relation to the ontological proof of God's existence, see Prior, 'Curry's Paradox'. Other medieval forerunners of Curry's Paradox can be found in the works of Bradwardine, Burley and a text attributed (probably incorrectly) to William of Sherwood. See Bradwardine, *Insolubilia*, pp. 128-29 (8.4); and 'Insolubilia Walteri Burlei' (based on Paris, Bibliothèque Nationale MS Lat. 16130, fols 114^v-118^r and London, BL, Royal 12 F. XIX, fols 133^v-138^r), p. 280; and 'Insolubilia Guillelmi Shyreswood' (from Paris, Bibliothèque Nationale MS Lat. 16617, fols 46^r-50^v), p. 261.

such-and-such, and see what would follow from that'. The *disputatio de obligationibus* was, as such, a highly imaginative form of dialogue:

It is not simply reasoning deductively from a hypothesis. It is somewhat closer to what goes on in counterfactual reasoning ('What would have happened if Caesar had not crossed the Rubicon, but the world were in other respects as much as possible the same?') [...] One might try to express the import of these rules in terms of Leibnizian possible worlds as follows: when P is posited and admitted, one's replies to the subsequent proposed sentences must be such that one concedes (or denies the contradictory of) a sentence if and only if it conforms to all possible worlds in which P is true and which are otherwise as much as possible like what, *for all one knows*, the actual world is like.³⁶

The question of whether God could have created alternative worlds to the one he did create was itself a source of controversy in late-medieval theology and logic. For instance, the proposition 'that the first cause could not make several worlds' was one of those condemned by the Bishop of Paris in 1277. Thomas Bradwardine famously considered the question in his *De causa Dei*.³⁷

³⁶ Spade, in Swyneshed, 'Roger Swyneshed's *Obligationes*', pp. 245-46. For more on Leibniz's conception of 'the best of all possible worlds', see Rutherford, *Leibniz*. The most important of Leibniz's works for this concept is his *Theodicy*. See Gottfried Wilhelm Leibniz, *Theodicy: Essays on the Goodness of God*. For a discussion of how Leibniz's philosophy is itself related to fourteenth-century logic, see Lagerlund, 'Leibniz (and Ockham)', pp. 99-118. Voltaire famously mocks Leibniz's optimistic thesis that we live in the best of all possible worlds in *Candide*. See Mason, *Candide: Optimism Demolished*, esp. pp. 5-8. In the twentieth century, literary critics, such as Doležel, applied aspects of Leibniz's philosophy of possible worlds, and its later evolution in modern modal logic, in their analysis. See, for example, Doležel, *Heterocosmica*, esp. pp. 12-16. While acknowledging the importance of the 'alternative world' concept in fourteenth-century logic, my own work will focus more on what Doležel calls 'narrative microstructures' or motifs, rather than the 'macrostructures' of the narrative worlds themselves, with which Doležel is principally concerned (p. 33).

³⁷ See Bradwardine, *De causa Dei*, I, Chapter 5 (esp. p. 177), and III, Chapter 52 (esp. p. 841). For a brief summary and discussion of the former, see Grant, *Much Ado About Nothing*, pp. 137-38. According to Simo Knuuttila, Duns Scotus was also influential upon a distinct but related question, since, as Ria van der Lecq phrases Knuuttila's thesis, it was Duns who 'developed a new modal theory [i.e. a theory concerned with the logical treatment of the possible rather than the actual] which may be rightly compared with a "possible-worlds"-theory in modern philosophy'. For example, for Scotus, 'something that is white now, could have been black at this same moment'. See van der Lecq, 'William Heytesbury on "Necessity"', p. 252. Van der Lecq also refers to Simo Knuuttila's observation that Scotus's break with tradition became 'a general feature

If the *obligationes* form thus allowed for the temporary creation of an alternative ‘world’ within which, however, the usual rules otherwise apply, it must have seemed a form very attractive to a writer of fiction, who must balance the creation of an alternative reality with the (quasi-Aristotelian) rules of probability and consistency.³⁸ In this way the *disputatio de obligationibus* was in keeping with fourteenth-century ideas of logic as a whole: it exemplifies the thought-experiment ‘secundum imaginationem’. A *disputatio de obligationibus* is also, therefore, necessarily different in character from strictly argumentative debate. As Paul Spade puts it, ‘a *disputatio de obligationibus* is a “disputation” without anything really in dispute.’³⁹ Like the treatises *de consequentiis*, *obligationes* both test the rules of logical reasoning and produce sophisms as their end result.

To take one clear example of literature inspired by such logical treatises, a poem now usually known as ‘Nego’, contained in BL MS Harley 913 (compiled in the 1330s), is explicitly constructed as a parody of the logical *disputationes de obligationibus*.⁴⁰ In the *obligationes*, one speaker may generate a string of

of fourteenth-century modal logic’ (see ‘Time and Modality’, p. 238); however, she does not agree with all aspects of Knuuttila’s analysis (van der Lecq, ‘William Heytesbury on “Necessity”’, p. 257).

³⁸ For Aristotle’s observations on consistency and probability or necessity within plots see, for example, *Poetics*, xv, 1454a-b, trans. by I. Bywater, p. 2327.

³⁹ Spade, ‘Three Theories’, in *Lies, Language and Logic*, Chapter 17, p.1 (the pagination in this book is non-standard and in future references to items in this book, chapter numbers will be given instead of page ranges).

⁴⁰ The best modern edition of the lyrics of BL MS Harley 913 is *Anglo-Irish Poems*, ed. by Lucas. Lucas christens the poem beginning ‘Hit nis bot trewth i-wend an afte’ with the name, ‘Nego’. The poem and translation can be found on pp. 166-67 of her edition; it is found on fol. 58^v of Harley 913. It is almost universally agreed that Harley 913 was compiled during the fourth decade of the fourteenth century and is of Franciscan production. Michael Benskin argues that, ‘the list of Franciscan custodies on fols 41^f-43^f is valid for Ireland only from 1325 to 1345, and for the rest of the contents, neither language nor scripts points beyond’. Therefore, he concludes, ‘on present evidence compilation during the 1330s is reasonably assumed’. See, ‘The Hands of the Kildare Poems Manuscript’, p. 164. Lucas agrees, since ‘the Norman French proverbs [...] are attributed to the first Earl of Desmond, who did not receive his title till 1329’. Thus, she argues, ‘MS Harley 913 cannot be much later than 1330-1335’. See Lucas, ‘Introduction’, in *Anglo-Irish Poems*, p. 19.

apparently (but not necessarily genuinely) consequential propositions and his fellow must answer either ‘Nego’, ‘Dubito’ or ‘Concedo’. All three of these technical terms appear *in Latin* in this English poem, as does the term ‘obligo’ and the paradoxical phrase ‘Verum Falsum’ (all in lines 17-21). The poem is not necessarily unqualified in its antischolasticism: its invective is merely directed against ‘*fals* clerkes’ (24), although it is not clear whether the poet can conceive of any other kind. What does seem likely is that the author is directly referring to obligational disputes as a distinct phenomenon in scholastic discourse.

The World of Logic and its Inhabitants

To return to the surreal imagery of the ‘enchanted world’ with which I began, it is important to emphasise that those tropes occur again and again in the *sophismata* and other logical treatises of the later Middle Ages; and that any contemporary reader even distantly acquainted with the logic of the time would have opened a new collection of *sophismata*, or a treatise on *consequentia*, with a very clear expectation of the sort of ‘images’ that would crowd together on its pages. Some of the terms used in the *sophismata* have a long and impeccable pedigree. To take one instance, that of the almost ubiquitous ‘ass’, Jan Ziolkowski has traced the lineage through successive incarnations of logical and philosophical discourse, right back to the Socratic dialogues of Plato himself.⁴¹ Many of the other terms stem at least from Boethius. Others are much newer, and are assimilated into the well-established discourse by individual writers in need of specific examples,

See also Lucas and Lucas, ‘Reconstructing a Disarranged Manuscript’; Robbins, ‘Authors of the Middle English Religious Lyrics’; Cartlidge, ‘Festivity’.

⁴¹ Ziolkowski, ‘Humour of Logic’, p. 7.

which are then inherited by their followers. Without doubt, by the beginning of the fourteenth century at least, there existed a well-established register of images that logicians like the ‘world famous’ Oxford Calculators could use as building-blocks for their *sophismata*.⁴² In other words, the semantic field of logic in the fourteenth century was much broader than the semantic field of logic in, say, the twenty-first century.

For example, in the case of Buridan’s *Sophismata*, there are certain categorematic terms that recur frequently. Some of the most common are listed in Appendix 2. There are certain results here that we would naturally expect: ‘false’, for example, is always going to crop up a good deal in insolubles, such as the Liar paradox. ‘A’, ‘B’ and ‘C’, commonly used to substitute for terms, parts of propositions or whole propositions, we would also expect to be prevalent. The frequent occurrence of ‘man’, perhaps, is not so surprising, although it does reveal the anthropocentric nature of Buridan’s *sophismata*. Other results here are perhaps more unexpected: for instance, together the two terms ‘ass’ and ‘horse’ occur more often than all of ‘false’, ‘A’, ‘B’, ‘C’, ‘nothing’, and ‘Plato’ put together.

⁴² The Oxford Calculators is the name commonly applied to the remarkable group of logicians, mathematicians and natural scientists that flourished in that University in the early-to-mid fourteenth century. Since they were centered around Merton College, they are sometimes alternatively known as the ‘Merton Men’. A number of the ‘Calculators’ will feature heavily in this thesis, especially Thomas Bradwardine and William Heytesbury. Potted introductions to these two men, along with certain other fourteenth-century logicians, can be found towards the end of this chapter. There are a number of useful and accessible introductions to the Calculators as a group. The entirely accurate epithet, ‘world famous’, is applied by Weisheipl (‘Ockham and Some Mertonians’, p. 164). See, alternatively, Weisheipl, ‘Ockham and the Mertonians’, pp. 607-58. See also Weisheipl, ‘The Place of John Dumbleton in the Merton School’; Weisheipl provides a useful ‘preliminary list’ of the works and manuscripts of a range of the Merton Men in his ‘Repertorium Mertonense’. See also Sylla, ‘Oxford Calculators’ and Sylla, ‘The Oxford Calculators in Context’. For a rather different approach to the application of the mathematical skills of the Merton men, see Kaye, *Economy and Nature*, esp. pp. 32-36 and pp. 200-246. For a more popular introduction to the ‘Calculators’, see Hannam, *God’s Philosophers*, pp. 167-80.

‘Run’ and its derivatives occur more often than ‘God’; but ‘Antichrist’ more times than ‘Aristotle’.

Two things become increasingly clear from a close study of Buridan’s *Sophismata*. The first is that he is not merely selecting his terms at random: the clustering around certain particular terms and general themes is too marked for that. Yet neither does Buridan’s selection of terms conform to *our* modern expectations of what a logical text should discuss. We might expect a great deal more ‘scientific’ terminology within the propositions themselves: we find some, but relatively little. ‘Angle’, ‘triangle’, ‘circle’, ‘vacuum’, and ‘star’ all together occur only once more than the single term ‘chimera’: a literary fiction. Buridan’s choice of terms is, however, by no means atypical of fourteenth-century logical writings.

For an educated medieval audience, the semantic field of logic would have included a large number of terms that might not immediately appear ‘logical’ or ‘scientific’. For instance, modern readers encountering the term ‘chimera’ in medieval literature, or the idea of a monster generally, may turn to classical mythology, or even perhaps to certain medieval moralistic texts, to find a reference-point; but they probably would not think of consulting a treatise on logic.⁴³ Readers encountering the phrase ‘writing on the wall’ might open the Bible at the book of Daniel; but they might not consider that the reference might be to a very well established tradition of logical philosophy, and so on. In the next

⁴³ One example of the use of the ‘chimera’ in a moralistic text is found in Robert Holcot’s commentary on the Twelve Prophets, which contains twenty-six vivid descriptions (or ‘pictures’) of allegorical creatures. Holcot was, however, a theologian with especially logical interests and approach, and his ‘pictures’ also contain at least one other shared image from the world of logic: the chameleon changing colour. See Smalley, *English Friars*, p. 173-74; citing Oxford, Bodleian Library MS Bodley 722 (2648), fol. 16^v and fol. 45^v.

section, I offer a few brief examples of some of the other ways in which logical tropes are visible in late-medieval literature. These examples will demonstrate that logical ways of thinking could, and did, have an impact on literary texts in the Middle Ages – before I turn to a more extended analysis of fourteenth-century Middle English literature in particular.

From Logic to Literature

In the twelfth and thirteenth centuries, sophistic tropes are most easily detected in literary works in Latin, as might be expected. Jan Ziolkowski has analysed the explicit presence of terms and problems from the *sophismata* in Latin drama, focusing on the *Geta* of Vitalis of Blois (which I will later discuss in relation to Gower). However, in order to maintain what may be called a certain ‘falsifiability’ in his method (that is ‘to reduce further the risk of finding formal logic where it is not’), Ziolkowski restricts his attention to ‘passages that feature logical *termini technici*, that profess to employ distinctively logical modes of argumentation, and that include debates over the capacities and limitations of logic and logicians’.⁴⁴ This approach is actually more cautious than it needs to be, especially when it comes to literature of the fourteenth century. Nevertheless, it is true that in this earlier period logical tropes have perhaps not spread as broadly into literary culture as they were to later. Although Ziolkowski himself acknowledges that even in the twelfth century ‘the impact of logic [was not]

⁴⁴ Ziolkowski, ‘Humour of Logic’, p. 4.

limited to Latin, the language of the schools', Latin literature does provide the richest source of explicit logical reference.⁴⁵

One Latin text of this period that clearly demonstrates the potential in broadening our analysis beyond the *termini technici* to what we may call the 'imagery' of the *sophismata* is the poem *De presbytero et logico* (*On the Priest and the Logician*), which survives in manuscripts including BL MS Harley 978.⁴⁶ The reference to logical texts is explicit. A priest is engaged in a dispute with a logician, and provides in the process a caricature of his work:

Sermo vester canis est, asinus, aut leo;
semper est de Socrate, homine tam reo:
in sermone mentio nulla fit de Deo[.]

(You're always talking about some dog or ass or lion.
You're always on about Socrates, that wicked man. In your
teaching you never make any mention of God[.])⁴⁷

The reference to Socrates is not a reference to any idea of Socratic philosophy, but merely to the conventional character who appears almost ubiquitously in sophismatic scenarios throughout the later Middle Ages. The reason that the logician never mentions God is perhaps because of the restrictions upon those engaged in the arts faculties of certain universities from teaching on controversial theological topics.⁴⁸ Here the logician is known not merely by his structures of

⁴⁵ Ziolkowski, 'Humour of Logic', p. 3.

⁴⁶ See 'De Presbytero et Logico', in *Latin Poems attributed to Mapes*, ed. by Wright, pp. 251-57. See also the edition based on Paris, Bibliothèque Nationale MS nouv. acq. 1544 and Paris, Bibliothèque Nationale MS Lat. 11867, of Haureau, *Notices et extraits*, VI, pp. 310-317. Unfortunately, the text found in Wright is, as Haureau notes, 'très défectueuse' (p. 310), although in the case of the passage quoted below, discrepancies between the two editions are negligible.

⁴⁷ *Latin Poems attributed to Mapes*, p. 252; lines 49-51. The translation is taken from an unpublished translation by Neil Cartlidge (who first drew my attention to this text), based on Wright's edition, informed by Haureau's edition.

⁴⁸ For a famous example of such a restriction in Paris, see 'Statute of the Faculty of Arts', trans. by Thorndike, in *Source Book in Medieval Science*, pp. 44-45.

thought but also by the terms used in his examples, which are conflated with conventional literary imagery when the priest later attempts to prove that the logician is ‘not much different from a dog’. In the context of the early terminism of the twelfth century, just as with the resurrected terminism of the fourteenth century, sophistic terms or ‘images’ are the mark of logical and quasi-logical texts; and they are adopted by poets and ‘cross-bred’ with more conventionally literary tropes to produce complex effects.

The register of conventional terms used by logicians in their examples was evidently still well known in the fifteenth century, when Rabelais manufactured his own parody of a scholastic question for inclusion in the catalogue of the library of St Victor: ‘Quaestio subtilissima, utrum Chimaera in vacuo bombinans possit comedere secundas intentiones’; whether a chimera farting (or buzzing) in a vacuum is able to eat second intentions.⁴⁹ Here it seems that Rabelais has simply plucked a number of otherwise unrelated sophistic ‘terms’ and strung them together to produce a meaningless proposition. This episode provides significant clues as to the extent of popular knowledge of the sophistic semantic field. There is the clichéd chimera, suggesting the problem of what such fictions, or what Desmond Paul Henry calls ‘empty names’, can refer to.⁵⁰ There is the hint, in the vacuum, of the physical problems that were formulated as *sophismata* in the fourteenth century, most famously by the Oxford Calculators. There is the logical fascination with meaningless human utterances, such as the ‘buf’ (belch) used by

⁴⁹ See Rabelais, *Gargantua and Pantagruel*, p. 152 (II. 7). Edith Sylla provides an interesting history of similar pseudo-sophisms in ‘Swester Katrei and Gregory of Rimini’, pp. 249-271. Peter W. Travis also briefly discusses this passage in relation to Chaucer: see *Disseminal Chaucer*, pp. 303-304. On the relation of the Latin word ‘bombinare’ to the common medieval analogy between farting and music, see Allen, *On Farting*, pp. 28-29.

⁵⁰ See Henry, *That Most Subtle Question*, esp. pp. 1-2.

Buridan and others.⁵¹ There is the trope of eating which recurs in collections of *sophismata*, as shown in the table (Appendix 2) and which brought with it associated and barely-concealed problems to do with Eucharistic theology. There is perhaps a reference to the problem of intentionality, the will and voluntarism in ‘secundas intentiones’. Finally, Rabelais’ question treats the abstract ‘secundes intentiones’ as something so real that they can be eaten – perhaps a subtle reference to the debate over realism and nominalism. This example proves that at the least one late-medieval author enjoyed reconstructing sophismatic propositions and scenarios from the debris of deconstructed logical texts. It also implies, however, a widespread knowledge of these terms as individual units whose logical connotations can be ‘activated’ when collocated in literature, even without the presence of a genuinely logical thought-structure (although, of course, such collocations surely provide a clue that their author might be interested in the corresponding thought-structures too, as Rabelais clearly is).

However, it is also true that whole *sophismata* sometimes survived and were recycled in later literary texts, essentially as jokes. One such is found in *Love’s Labours Lost*, where the absurd pedant, Holofernes, is pseudo-logically ‘proven’ to be an ass (on the grounds that he isn’t a lion).⁵² Cervantes makes even fuller use of another famous sophism to puzzle Sancho Panza in Part II of *Don Quixote*. Sancho’s governorship of Baratania is put to the test by the problem of the bridge that you can only cross without being hanged if you say truly where

⁵¹ See my detailed discussion of this logical trope in relation to the Summoner’s Tale in Chapter 1.

⁵² *Love’s Labours Lost*, in Shakespeare, *Complete Works*, v. 2. 639-44. See above for one example of the ‘You are an ass’ tradition within medieval *sophismata*. Bottom’s transformation in *A Midsummer Night’s Dream*, III. 1, may well have something to do with this tradition too.

you are going.⁵³ The trope of the uncrossable river is widespread in medieval riddles and logical puzzles, stemming perhaps from the well-known collection of such problems in Alcuin's *Propositiones ad acuendos iuvenes* (*Propositions for the Sharpening of Young Minds*), which contains the famous wolf, goat and cabbage problem, usually now known as the fox, chicken and grain problem.⁵⁴ It is also worth briefly noting here that some of the postulated problem scenarios in the logical texts are at least broadly similar to the trials that heroes in the romances must overcome: for instance, Chretien de Troyes's *Lancelot* makes use of two problematic bridges (The Underwater Bridge and The Sword Bridge) and an uncrossable ford.⁵⁵ The question will occur throughout this thesis whether literary tropes influenced logicians in their imagined scenarios or, conversely, logical puzzles influenced literary authors, or both. In the case of Cervantes,

⁵³ See Cervantes Saavedra, *Don Quixote*, p. 832 (Part II, Chapter 51).

⁵⁴ For an edition of the *Propositiones* (including a discussion of their authorship and influence), see Alcuin (ascr.), 'Propositiones ad acuendos iuvenes' (ed. by Folkerts). For a translation, see Hadley and Singmaster, 'Problems'. According to Folkerts ('The *Propositiones ad acuendos iuvenes* Ascribed to Alcuin', in *Essays on Early Medieval Mathematics*, Chapter 4 (the pagination of this book is non-standard)), the text was written in the ninth century, at the latest. It has often been ascribed to Alcuin of York, although such an ascription is now widely challenged. Folkerts argues for the widespread and long-lasting influence of the *Propositiones* in Italy and Germany. The text was also circulating in England in the later Middle Ages: the two latest manuscripts containing the *Propositiones*, one thirteenth-century and one fifteenth-century, are both English (for fuller descriptions of the manuscripts, see Folkerts in Alcuin (ascr.), 'Propositiones ad acuendos iuvenes', p. 21). The wider cultural currency of the puzzles of the *Propositiones* in fourteenth-century England is attested by a marginal illustration in the Ormesby Psalter (Oxford, Bodleian Library MS Douce 366, fol. 89^r: see Appendix 3), which depicts the famous river-crossing with wolf, goat and cabbages (an illustration first drawn to my attention by Alixe Bovey in the *Medium Ævum* Annual Lecture 2009: 'Ludic Margins: the Gravity of Play in Gothic Manuscripts', given 03/04/2009 at Lincoln College, Oxford). The problem itself (problem 18 in the collection) concerns a farmer attempting to cross a river in a boat that is only large enough to carry, at any one time, the farmer and one of his three possessions: a wolf, a goat and a bunch of cabbages. The problem is how to transport the farmer and his gear across the river, without leaving wolf and goat or goat and cabbages alone together. See Hadley and Singmaster, 'Problems', p. 112. For other versions and extensions of Alcuin's original river crossing puzzles, see Pressman and Singmaster, 'The Jealous Husbands'. Lewis Carroll himself may have been responsible for one later development of Alcuin's river crossing puzzles, in which four couples are to cross the river without any of the wives being left with any man but her own husband (even if other women are present). Eight crossings are needed. See *Rediscovered Lewis Carroll Puzzles*, pp. 17 and 66.

⁵⁵ See Chrétien de Troyes, *Arthurian Romances*, p. 216.

however, the answer is fairly clear. Sancho's problem is almost identical in form to a widespread fourteenth-century sophism, where Plato will only allow Socrates to cross his bridge if the next proposition he speaks is true; otherwise he will be thrown in the water. Socrates replies, 'You will throw me in the water', just as Cervantes' cunning traveller announces that he is going to the gallows.⁵⁶ Thus the specific imaginative scenarios that medieval logicians dreamt up as suitable contexts for their logical discussions were, even by the seventeenth century, still alive enough to exert a broader cultural influence.

The humorous literary appropriation of logical tropes and problems stems from the fact that even the 'serious' logicians of the Middle Ages were aware of, and rejoiced in, the playfulness and absurdity of some of the impossible propositions and unlikely situations they envisaged. Jan Ziolkowski writes in relation to the logical treatises of the twelfth century:

Despite – or because of – the austerity of the schoolbooks [of Aristotle, Porphyry and others], indications are strong that teachers of formal logic recognized and exploited the utility of humour as a pedagogic device. They made an ostentatious, although perhaps ultimately vain, effort to leaven their expositions of logic with touches of humour. This effort was particularly justified, since laughter was viewed as a uniquely human capability.⁵⁷

⁵⁶ The problem is usually known as 'Buridan's Bridge' since it appears in his *Sophismata*, although it was known beforehand. See Buridan, *Sophisms*, p. 219 (Chapter 8, Sophism 17). I discuss the problem, and its other incarnations, in more detail in my analysis of the Summoner's Tale in Chapter 1. See Jones, 'The Liar Paradox', for a useful discussion of the episode in *Don Quixote*. Jones attributes the problem to Paul of Venice, but does not mention its earlier provenance. See Rescher, *Paradoxes*, pp. 62-63, for a logical analysis of Cervantes' version of the paradox. Rescher relates the paradox to the ancient '*Nasty Crocodile Paradox*' mentioned twice by Diogenes Laertius [...]: Having snatched a baby the nasty crocodile turned to the father: "Answer carefully," he said, "for your baby's life depends on your truthfulness: will I eat your baby?" After thinking for a moment the cagey father replied: "Yes, I do believe you will." (p. 62). See also Read, *Thinking about Logic*, pp. 148-49. For a discussion of the various late-medieval forms of the paradox, see Ashworth, 'Will Socrates Cross the Bridge?'. See also Ashworth, 'Treatment of Semantic Paradoxes', pp. 39-40.

⁵⁷ Ziolkowski, 'Humour of Logic', p. 5.

This thesis will present a range of evidence to suggest that at least for many medieval readers and writers the injection of playfulness into logical treatises was by no means ‘ultimately vain’. Yet Ziolkowski’s analysis of the use of humour in these texts is otherwise precisely correct, and the tendency of logical writers to utilise humour remains clear in the fourteenth century too. The term ‘*risibile*’ (meaning ‘able to laugh’) occurs in at least fifteen different textual and propositional contexts in Buridan’s *Sophismata*, in which it is made clear that the ability to laugh, like the ability to reason, is a quality expected of all humanity but of no other animal. Rationality and ‘risibility’ are inextricably linked for the fourteenth-century logician, and it therefore seems unthinkable that they were oblivious to the great potential for playfulness, absurdity and humour that their logical adventures yielded - especially when we remember their audience of ‘undergraduates’, who used the language of the *sophismata* to construct jokes at each other’s expense. For instance, Euclid’s fifth proposition was nicknamed (perhaps in the late-fourteenth century) the *Pons Asinorum*, the Bridge of Asses, since it was considered the first non-trivial problem, and the bridge to the rest of *The Elements*, which ‘asses’ or fools were unable to cross.⁵⁸ The name was also applied to Buridan’s technique to help his less able students find the middle term in a syllogism.⁵⁹

If it is possible to detect the comic dimension of logical terms, it is also clear that there is much more than mere ‘undergraduate’ humour invested in these words and phrases. Some fourteenth-century logicians were clearly aware that the

⁵⁸ For an interesting discussion of this and other popular names for Euclidean propositions, see Heath (trans.), *Euclid*, pp. 415-18.

⁵⁹ Heath (trans.), *Euclid*, p. 416.

conventional terms or ‘images’ used in their treatises were pregnant with serious meanings that stretched far beyond their strictly logical heritage. John Wyclif, for example, in his *De logica*, one of his earliest works, uses the twin propositions ‘Antichristus est homo, antichristus est Rome’ (‘the Antichrist is a man; the Antichrist is in Rome’).⁶⁰ Each of the categorematic terms in this pair of propositions is conventionally sophismatic (all three appear in propositions in both Heytesbury’s and Buridan’s *Sophismata*, for instance); and there is nothing unusual in logicians choosing provocative examples, such as Buridan’s ‘God is an ass’.⁶¹ Yet it is possible that Wyclif attaches more than formal significance to these propositions, providing a clue to the development of his ecclesiology even at so early a stage in his career.⁶² In other words, the fact that logical texts relied on a pool or bank of such terms by no means deprived them of their provocative or fantastic connotations, even in purely logical texts; and even less so when they were appropriated by literary authors.

Logic and Mathematics

This thesis is entitled ‘Literature, Logic and Mathematics in the Fourteenth Century’ because it is important to acknowledge the extent of overlap between what was then thought of as ‘logic’ and what is now thought of as ‘mathematics’.

⁶⁰ See Wyclif, *Tractatus de Logica*, I, p. 69. Dziewicki noted the theological significance of this proposition in his Introduction to this edition, p. VII; as did Samuel Thomson: ‘Philosophical Basis of Wyclif’s Theology’, p. 88.

⁶¹ Buridan, *Sophisms*, p. 196 (Chapter 8, Discussion of Sophism 7).

⁶² On the other hand, it is important to acknowledge with Gordon Leff that to some extent ‘there is an undeniable discontinuity in [Wyclif’s] intellectual development’, and one should be very careful indeed in ‘reading back the characteristics of his theology into his metaphysics’. Leff, ‘Place of Metaphysics’, pp. 217-32.

Many questions which we would now consider to be aspects of the higher mathematics, such as the problems *De maximo et minimo* in Heytesbury, were in the fourteenth century still considered to be questions of logic, for the simple reason that they are not obviously questions either of arithmetic or geometry. This may not be self-evident, especially to modern readers who think of problems such as the Mean Speed Theorem of the Oxford Calculators almost inevitably in terms of *graphs*, and thus to whom such problems seem obviously geometrical.⁶³ However, only the barest roots of what was later to become analytic geometry are to be found in the fourteenth century, most notably in the work of Richard Swineshead and Nicole Oresme;⁶⁴ and it is important to envisage both the sheer difficulty and the emphatically *logical* status of such questions without the modern form of analysis. In fact, Swineshead himself explicitly refers to one such investigation as a '*sophisma*', despite what one modern commentator calls its 'distinctively mathematical' nature.⁶⁵ The treatises of Heytesbury and others were really 'about the logical effects of *words* like [...] "begins" and "ceases" that offer many opportunities for [logical] fallacies': but those fallacies were tested in imagined scenarios that seem today to be more mathematical than logical.⁶⁶ Thus the term 'mathematics' features in the title of this thesis partly as a recognition of

⁶³ The Mean Speed Theorem is concisely defined by John Longeway as the theorem 'that a uniformly accelerated body will, over a given period of time, traverse a distance equal to the distance it would traverse if it were moved continuously in the same period at its mean velocity (one half the sum of the initial and final velocities) during that period': Longeway, 'William Heytesbury', in *SEP*. In other words, a car accelerating at a constant rate from 50 to 100 mph in a minute will cover the same distance as a car travelling constantly at 75 mph over that minute.

⁶⁴ See Clagett, 'Richard Swineshead', pp. 331-46. According to James Weisheipl, Leibniz himself (who developed analytic geometry into the modern calculus in the seventeenth century) 'was sufficiently impressed with Swineshead's work to think that he was the first to introduce mathematics into scholastic philosophy': Weisheipl, 'Ockham and Some Mertonians', p. 212; citing Leibniz's letter to Thomas Smith (1696).

⁶⁵ Murdoch, 'Infinity and Continuity', pp. 590 and 588.

⁶⁶ Spade, 'Late Medieval Logic', p. 402: my emphasis.

the fact that, for many readers, a good number of the examples under discussion will concern problems that they will think of as mathematical as much as logical.⁶⁷ Yet the sophismatic method, which is at the centre of what I mean by fourteenth-century logic, was engaged with these ‘mathematical’ problems as well as linguistic, semantic and epistemological ones.

Elements of the sophismatic tradition of the later Middle Ages could also be seen as growing out of and then running alongside an earlier tradition of arithmetical, geometrical and, by the fourteenth-century, ‘algorismic’ puzzle collections.⁶⁸ For example, the *Propositiones ad acuendos iuvenes* of Alcuin, mentioned above, mixes straightforward problems of arithmetic and geometry with simple logical puzzles (such as the ‘wolf, goat and cabbage’ river-crossing problem) and even humorous tricks and riddles. Chapter 2 of this thesis will argue that fourteenth-century writers like Chaucer, with an amateur interest in mathematics and logic, saw the *sophismata* of his own time as the inheritor of, and perhaps the up-start competitor of, earlier, simpler ‘mathematical’ problems.⁶⁹ Thus the nature of the interaction between what was at the time deemed ‘mathematics’ and what was deemed ‘logic’ is a relevant area of investigation in itself.

⁶⁷ As Edith Sylla observes, ‘if later scholars have noticed and valued the work of the Oxford Calculators for its physical and mathematical content, nevertheless, within the fourteenth-century Oxford academic context, the work of the Calculators probably arose not in the guise of recognised mathematics or natural philosophy, but within the standard practice of logical disputations’ (‘The Oxford Calculators’, p. 542).

⁶⁸ For a concise history of such ‘mathematical recreations’, see Smith, *History of Mathematics*, II, pp. 532-36.

⁶⁹ Chaucer’s interest in the practical applications of mathematics is amply evidenced by his *Treatise on the Astrolabe*. I discuss it very briefly in relation to the problems of the continuum in Chapter 2.

It is also possible that late-medieval developments in what we would now think of as ‘mathematics’ were beginning to affect at least the literary discussion of problems that had previously been considered purely from logical or logico-theological perspectives. The example that I will discuss in detail is Gower’s treatment of the problem of future contingency in the light of the increasingly sophisticated methods of dealing with problems of ‘chance’ and ‘expected outcomes’ in the later Middle Ages. Far from being primarily *logical* in origin, the evolution of a ‘proto-probability theory’ in the thirteenth and fourteenth centuries seems to stem from real-life problems of economics and entertainment, in the form of gambling. Nevertheless, such developments, although they were often originally non-scholastic and would now be considered ‘mathematical’ rather than logical, are relevant to this discussion because they were relevant to the central logical problem (in this thesis and arguably in the fourteenth century itself) of the nature of future contingency. It is all the more important that they be considered because it seems that Gower’s use of them in his treatment of the contingency question is rather unusual. Rather than simply imitating conventional scholastic lines of enquiry, Gower is using a *literary* text as a means of actively engaging with established logical problems, in a fashion that could be described as philosophically ‘cutting-edge’ for the time.

Fourteenth-Century Logicians

If the images and characters that populate the pages of late-medieval logical treatises are distinctively idiosyncratic, so too are many of their creators. In order to provide a context for my discussion of logic’s influence on medieval literature,

I provide in this section a series of introductions to some of the key figures in the world of fourteenth-century logic. It is worth emphasising, however, that in their own time, and indeed for a couple of centuries afterwards, these figures would have required no such introduction, especially to anyone of a philosophical bent. It is telling, for instance, that Ralph Strode, whose fame as a logician was well established in Italy for two hundred years after his death, tends to be known to medievalists only for Chaucer's reference to him at the end of *Troilus and Criseyde*.

Robert Holcot:

Robert Holcot (died 1349) was a Dominican Friar who studied and taught at Oxford and possibly later at Cambridge.⁷⁰ In addition to the standard course of lectures on Lombard's *Sentences*, he lectured on the Twelve Minor Prophets, Matthew, perhaps Ecclesiastes and Wisdom. He also took part in, and has left discussions of, quodlibetal disputations. He is known to Chaucer scholars principally for his Wisdom commentary, which Chaucer relies upon for certain passages of the Nun's Priest's Tale.⁷¹ This single fact has, perhaps, given most readers of late-medieval literature a rather stunted view of who and what exactly Holcot was. His true scholarly character was one of 'theological acuity aided by brilliance as a logician', as Katherine Tachau puts it.⁷² Certainly his most controversial writings concern the logical questions over God's foreknowledge,

⁷⁰ Gelber, 'Robert Holcot', in *SEP*. For supporting and further information on Holcot, see Jenny Swanson, 'Holcot, Robert (c.1290–1349)', in *ODNB*; and Beryl Smalley's chapter on Holcot in *English Friars*, pp. 133-202.

⁷¹ See Pratt, 'Latin Sources'. For a list of Holcot's Latin works see Sharpe, *A Handlist*, pp. 553-558.

⁷² Streveler and Tachau, 'Introduction,' in Holcot, *Seeing the Future*, p. 2.

revelation and future contingency found in his quodlibetal *quaestiones*, his *Sentences* commentary and even, in a small way, in the Wisdom commentary.⁷³ His logical ingenuity was complemented by considerable powers of literary imagination and expression. This is demonstrated by the ‘evocative verbal “pictures” of [the] Wisdom commentary’, the clear enjoyment of puns and pseudo-etymologies in his *Sermo finalis*, and his probable contribution to the *Philobiblon* of Richard of Bury and his circle.⁷⁴ Through his association with Richard of Bury (who was the Bishop of Durham), Holcot entered ‘a circle of scholars [...] which embraced the best of scholastic logicians and “proto”-humanist *literati*’ and ‘his presence at London in Bury’s palace gained him an audience among courtiers increasingly literate and like him classicizing in taste’.⁷⁵

Philosophically, Holcot was one of the heirs of Ockham. In fact, he ‘assumed most of Ockham’s philosophical positions as foundational, taking them for granted in the development of his theology’.⁷⁶ Thus Holcot’s theological positions, though often radical, were not isolated or entirely novel, but formed part of the nominalist and sceptical current within English thought. As Katherine Tachau argues,

an Oxford theological audience in 1331 would surely have recognized that few of the arguments preserved in the record of Holcot’s debates were *novel*; on the contrary, Holcot’s task was to come to terms with a common fund of problems, objections, and considerations that established the recent parameters of discussion.⁷⁷

⁷³ Holcot, *Super libros sapientiae* (Hagenau); and *Quatuor Libros Sententiarum Quaestiones*.

⁷⁴ Streveler and Tachau, ‘Introduction’, in Holcot, *Seeing the Future*, p. 2. See Wey, ‘The Sermo Finalis’; and Richard de Bury, *The Love of Books*.

⁷⁵ Streveler and Tachau, ‘Introduction’, in Holcot, *Seeing the Future*, p. 2.

⁷⁶ Gelber, ‘Robert Holcot’.

⁷⁷ Tachau, ‘Logic’s God’, p. 244.

Through Holcot's logical and theological explorations, Chaucer and other later fourteenth-century writers were exposed to one side of a particularly fierce debate that had flared up in the first half of the century, to be reignited by another Oxford logician in Chaucer's own generation, John Wyclif.

Thomas Bradwardine:

Thomas Bradwardine was, in the words of James Weisheipl, 'the one [Fellow of Merton] who most influenced the thought of the College towards a mathematical approach to physics' and 'has rightly been called the "founder of the Merton School"'.⁷⁸ Judging from the known facts about his academic career, Bradwardine must have been born around the turn of the fourteenth century, perhaps as early as 1290, but we have neither a definite date nor a certain place of birth.⁷⁹ By 1321, he was a fellow of Balliol; by 1323, of Merton, presumably having already graduated as Master of Arts. In the course of his following regency teaching in the arts, Bradwardine composed his tract *De insolubilibus*, and published his celebrated *Tractatus de proportionibus* (*Treatise on Ratios*) in 1328, having already begun his theological study.⁸⁰ It was around this time that Bradwardine began to adopt his characteristic emphasis on God's antecedent grace in the process of salvation, which flowered, over the next fifteen years, into his polemical summa, *De causa Dei contra Pelagium* (*The Case for God Against the*

⁷⁸ Weisheipl, 'Ockham and Some Mertonians', p. 189.

⁷⁹ Weisheipl gives the date and place of birth as 'about 1295, probably in the diocese of Chichester', although he clarifies in a footnote that the traditional attribution of Chichester as Bradwardine's birthplace is based on a misunderstanding of a passage in his *De causa Dei*, p. 559, which 'merely states that his father was then living in Chichester'. See Weisheipl, 'Ockham and Some Mertonians', p. 189. Gordon Leff gives a date of birth c. 1290: *Bradwardine and the Pelagians*, p. 2.

⁸⁰ Genest, *Prédétermination et liberté*, p. 13. For a list of Bradwardine's Latin works see Sharpe, *A Handlist*, pp. 642-644.

Pelagians) (c. 1344)⁸¹. He was elected proctor twice in the mid-twenties and remained at Merton until about 1335, when it seems he joined Richard of Bury's circle of philosophers and theologians. Shortly afterwards, as a papal mandatory, he heard, and perhaps participated in, a dispute on future contingency at Avignon. He was appointed Chancellor of St Paul's in 1337, and consecrated Archbishop of Canterbury in 1349, holding the position for only just over a month, before he died of the plague.⁸²

Bradwardine's association with Richard of Bury is of especial significance, given Holcot's membership of the same circle. Holcot was a close contemporary 'with whom Bradwardine might have debated at Oxford during his three years as bachelor'. Holcot was also one of the thinkers who developed radical positions on future contingency after William of Ockham, and whom Bradwardine famously attacked in *De causa Dei*.⁸³ As I discuss below, the later controversy between Wyclif and Strode over necessity echoes this earlier controversy between Bradwardine and what he himself called the 'Pelagian' wing of English theology.⁸⁴ It is notable that half a century before Chaucer weighed in with what I will argue is his literary contribution to the Wyclif-Strode dispute, Bradwardine and Holcot (at contrary extremes of the philosophical spectrum on the contingency question) also moved together in what was essentially a literary milieu, under the patronage of Richard of Bury.

⁸¹ Bradwardine, *De causa Dei*.

⁸² Leff, 'Bradwardine, Thomas', in *ODNB*.

⁸³ Weisheipl, 'Ockham and the Mertonians', p. 650.

⁸⁴ For a neat, brief summary of the terms 'Pelagianism' and 'Semi-Pelagianism', see Weisheipl, 'Ockham and the Mertonians', pp. 645-46.

Bradwardine's theological speculations should be viewed in the context of his ground-breaking mathematical research, for which he remains justly famous, especially the *Tractatus de proportionibus*, 'which continued to be influential until the time of Galileo'.⁸⁵ Within the last decade, some research has begun to explore the influence of Bradwardine's mathematical and theological works upon later fourteenth-century literature, partly to the detriment of the importance of logic in Bradwardine's thought and reputation.⁸⁶ However, it is important to note that Chaucer's friend, Ralph Strode, seemed most enamoured and impressed by Bradwardine's logical work on insolubles, which is significant given his own logico-theological controversies with another admirer of Bradwardine, John Wyclif. Nor is there anything unusual about Strode's depiction of Bradwardine as a formidable logician. As Paul Vincent Spade notes, Bradwardine's treatise on insolubles 'was perhaps the most influential treatise on semantic paradoxes throughout the Middle Ages'.⁸⁷ Consequently, to adopt a late fourteenth-century perspective, Bradwardine should be seen as a logician as much as a mathematician and theologian, and all three aspects of his work need to be borne in mind when discussing the extent and nature of Bradwardine's influence on later literary writers.

⁸⁵ Leff, 'Bradwardine, Thomas'.

⁸⁶ See, for instance, Edwards, 'Geometric Theology'.

⁸⁷ Spade, 'Late Medieval Logic', p. 404.

William Heytesbury:

William Heytesbury was born probably sometime before 1313 and lived until 1372/3.⁸⁸ By 1330 he was a fellow of Merton, by 1340 of Queen's College, by which time 'we may assume that Heytesbury was already a theological student'.⁸⁹ It seems, however, that he returned to Merton soon after. Some time before 1348, Heytesbury became Doctor of Theology, and apparently twice held office as Chancellor of the University, probably in 1353-54 and 1370-72. No theological work of Heytesbury's has survived, if he ever wrote any. All his known works date from the thirties, during his arts regency, the most famous of which is undoubtedly his *Regule solvendi sophismata* (*On the Rule for Solving Sophisms*), which can be dated with some confidence to 1335.⁹⁰

The tendency of Heytesbury to incorporate physical problems into his major work on *sophismata*, although highly significant, has perhaps led to a slight over-emphasis on the centrality of physical questions in fourteenth-century logic. This widespread perception of Heytesbury as primarily a 'physicist' has probably been strengthened by the popularity and accessibility of Curtis Wilson's book on *William Heytesbury: Medieval Logic and the Rise of Mathematical Physics*.⁹¹ So for instance, discussing the 'ars-metrike' of the Summoner's Tale, Timothy O'Brien writes that fourteenth-century logicians were testing 'physical laws as often as logical ones' and that 'solutions to such [logical] problems at Oxford during this period [...] often depended on arithmetical and geometrical

⁸⁸ Livesey, 'Mathematics', p. 11; Spade, 'Introduction', in Heytesbury, *On 'Insoluble' Sentences*, p. 1.

⁸⁹ Weisheipl, 'Ockham and Some Mertonians', p. 195.

⁹⁰ Livesey, 'Mathematics', p. 11. For a list of Heytesbury's Latin works, see Sharpe, *A Handlist*, pp. 775-777.

⁹¹ Wilson, *Heytesbury*.

demonstrations’, appealing specifically to Heytesbury in justification of this claim.⁹² The last three chapters of the *Regule* do indeed introduce a large number of physical questions, although this is not so much the case with the first three chapters, which concern such standard logical fare as insolubles and epistemological paradoxes. However, it is clear that the physical questions fit into the larger context of Heytesbury’s collections of logico-linguistic *sophismata*. For instance, in his other treatise on the *Sophismata*, he treats propositions apparently taken from Ricardus Sophista’s thirteenth-century treatise for the first thirty sophisms, adding only two at the end on more ‘physical’ questions.⁹³ As discussed above, yet another collection of sophismata, the *Sophismata asinina*, is entirely concerned with the highly conventional sophism ‘You are an ass’.⁹⁴ Thus it is true that many of the fourteenth-century *sophismata* were physical in nature, and such questions could be referred to as ‘phisike’ even at the time, but their treatment was nevertheless logical, in that it was sophismatic, and the physical *sophismata* should not be torn from this logical context.⁹⁵ My treatment of the literary influence of Heytesbury, whilst making use of his physical interests and examples, will bear in mind his primary character as a logician.

⁹² O’Brien, ‘Ars-Metrik’, p. 14.

⁹³ Edith Sylla points out that even in the case of these last two *sophismata*, ‘a prominent feature [...] is that they model propositions involving “necessary” and “impossible” and that therefore ‘despite their presentation of physical considerations, they might well be disputed in connection with logical problems of modality’: Sylla, ‘Oxford Calculators’, p. 559. See also, Heytesbury, *Sophismata*. References to folio numbers in this text will follow Pironet’s foliation, which refers to the incunabulum edition of Bonetus Locatellus (Venice: 1494). For more on Richard the Sophist, see Paul Streveler, ‘Richard the Sophister’, in *SEP*. A collection of excerpts from his *sophismata*, known as the *Abstractiones*, are found in seven manuscripts (see Streveler for details). There is an online text of the *Abstractiones*, ed. by Ulrich Harsch.

⁹⁴ Heytesbury, *Sophismata asinina*. See also de Rijk, *Logica Modernorum*, II, part 1, pp. 65-67, who discusses Sophista’s earlier use of asinine *sophismata*; and Nuchelmans, ‘Walter Burleigh’.

⁹⁵ See below for a discussion of the meaning of the word ‘phisik’ in *Troilus and Criseyde*. See also MED, ‘phisike’ (n) 2.

John Buridan:

Born before 1300 in Picardy and educated in Paris, John Buridan had received his Master of Arts by the mid-twenties. He enjoyed ‘a long and illustrious career’ in the Faculty of Arts of the University of Paris, and was made Rector in 1328 and again in 1340.⁹⁶ Buridan’s writings cover many aspects of philosophy, but as a Master of Arts, he never wrote on theology, nor, despite his obvious philosophical acuity, did he ever move on to a doctorate in one of the higher faculties, as was usual. In addition to his treatise on the *Sophismata*, with which this thesis will principally deal, he produced a wide range of commentaries on Aristotle, a *Summulae de dialectica* and a *Tractatus de consequentiis*.⁹⁷ He died sometime between 1358 and 1361.

Buridan is the only non-English logician whose work will receive significant and repeated attention in this thesis; and this for two reasons. As Theodore Kermit Scott says, ‘he completely dominated later medieval philosophy at Paris’;⁹⁸ but he was also a man who took up and developed methods that might otherwise be viewed as typical of the current of English logic in the early fourteenth century. He was a terminist after Walter Burley, a nominalist after Ockham, and like the Oxford Calculators, or so-called Merton men, he was a student of physics and mechanics.⁹⁹ By the second half of the fourteenth century, and largely due to Buridan’s influence and the brilliance of some of his students, logic on the continent was beginning to outstrip English logical thought. Any account of what a late fourteenth-century author might have understood by

⁹⁶ Zupko, *John Buridan: Portrait*, p. xi; Zupko, ‘John Buridan’, in *SEP*.

⁹⁷ Scott, ‘Introduction’, in *Buridan: Sophisms*, pp. 2-3; Zupko, ‘John Buridan’.

⁹⁸ Scott, ‘Introduction’, in *Buridan: Sophisms*, p. 1.

⁹⁹ Spade, ‘Late Medieval Logic’, pp. 403-405. Scott, ‘Introduction’, in *Buridan: Sophisms*, p. 13.

‘logical philosophy’, even specifically in relation to English culture, would be partial or distorted, without reference to Buridan. This is especially the case because Buridan’s thought is anything but narrow. As Zupko puts it, ‘logic is how [Buridan] makes sense of the world as a philosopher’: the impact of his logic, both in terms of his own thought and in the thought of those who read him, is intellectually and culturally far broader than that one specific field.¹⁰⁰

Second, Buridan was a figure surrounded by so much of what ‘Edmond Faral called the “bruits de ville” or “buzz”’, that his own life ‘quickly turned [...] into the stuff of legend’;¹⁰¹ indeed, into the stuff of logic, his own highly imaginative logic. Many of the reputed incidents of his life would gel seamlessly with the more bizarre examples from Buridan’s *Sophismata*: being thrown into a river by the King of France, or unintentionally improving a (future) Pope’s memory by hitting him on the head with a shoe in a fight over another man’s wife.¹⁰² Indeed it is by no means impossible that the logic inspired the legends, rather as the pseudo-biographical *vida* of the troubadours were composed in part by literalising their own fictions.¹⁰³ Buridan’s *Sophismata* forms, quite apart from its philosophical value, a near compendium of sophismatic exemplars and images, some as old as Plato, some brand new. If one can see them spilling out even into the biography of a respectable scholar, it is no wonder that Buridan’s works form a veritable reference library when attempting to trace the possible logical

¹⁰⁰ Zupko, *John Buridan: Portrait*, p. 271.

¹⁰¹ Zupko, ‘John Buridan’, in *SEP*; quoting Edmond Faral, *Jean Buridan: Maître ès Arts de l’Université de Paris, Extrait de l’Histoire littéraire de la France, Tome 28, 2e partie* (Paris: Imprimerie Nationale, 1950), p. 16.

¹⁰² Zupko, ‘John Buridan’, in *SEP*.

¹⁰³ For a brief discussion of this tendency, see Poe, ‘The *Vidas* and *Razos*’, p. 189.

provenance of a particular striking image or fantastical scenario; and this is very often how I have used Buridan's *Sophismata* in this thesis.

John Wyclif:

John Wyclif is almost famous enough to need no introduction, were it not for the fact that his true character as Oxford logician, and the extent to which his logic influenced and directed the wider effects of his theology, is probably less well known to readers of late fourteenth-century literature than his reputation as the inspiration for a popular religious movement.¹⁰⁴ As Anthony Kenny put it, 'if Wyclif was the Morning Star of the Reformation, he was also the Evening Star of Scholasticism', since he has been seen as 'the last of the great Oxford schoolmen'.¹⁰⁵

Wyclif was born sometime in the third decade of the fourteenth century and died in 1384. His place of birth is unknown, although he has often been

¹⁰⁴ For a broad survey of the context, key features and effects of Wyclif's life and thought, see Catto, 'Wyclif and Wycliffism', pp. 175–261. One of the standard works on Wyclif's influence is Hudson, *Premature Reformation*. Kantik Ghosh gives a compelling account of the development of Wycliffite thought and its influence, in which Wyclif's logic plays a modest part, in his *Wycliffite Heresy*, esp. pp. 4-5, p. 31 and pp. 127-28. Ghosh's article on 'Logic and Lollardy' also discusses the theological effects of Wyclif's relationship with scholastic logic, in English as well as Latin writings, although his focus is rather different from mine. See also Evans, *Language and Logic of the Bible*. Anthony Kenny presents a revisionist view of Wyclif as a thinker who was not, in fact, radically more determinist than his contemporaries, despite his reputation: 'Realism and Determinism', pp. 165-77. See also Kenny, *Wyclif*, which contains some of the same material, and *Wyclif in His Times*, ed. by Kenny. William J. Courtenay provides an account of Wyclif as a thinker at Oxford, focussing on the problematic role of realism in his logic (see *Schools and Scholars*, pp. 348-55). Leff discusses some of the tensions, as well as the similarities, between Wyclif's early philosophy and his later theology in 'Metaphysics in Wyclif's Theology', pp. 217-32. See also Leff, *Heresy*, II, pp. 494–573. For a much briefer but useful summary of Wyclif's distinctive logical positions, see Ashworth and Spade, 'Logic in Late Medieval Oxford', pp. 54-56. For a list of Wyclif's Latin works, see Sharpe, *A Handlist*, pp. 347-354

¹⁰⁵ Kenny, *Wyclif*, p. v.

considered a northerner, from the village of Wycliffe in the North Riding.¹⁰⁶ By 1356, he was a probationary fellow of Merton, although it appears from an early fifteenth-century catalogue of former Merton fellows (the *Catalogus Vetus*) that he failed to last a full year. The reason for his early departure is unknown. The same catalogue describes Wyclif as a Doctor of Theology ‘qui [...] nimium in proprio ingenio confidebat’ (‘who used to trust too much in his own ingenuity’):¹⁰⁷ a slur of character, perhaps, but one that may hint at Wyclif’s infamy among his near contemporaries rather for intellectual virtuosity than for the sort of popular Biblical ‘fundamentalism’ with which his name has been all too often associated since the Reformation, and to this day.¹⁰⁸ By December 1360, Wyclif was Master of Balliol, and later that decade he was appointed warden of the newly established Canterbury College.

By the early years of the seventies, Wyclif’s *philosophical* opinions were beginning to provoke controversy. As Robson explains, ‘the arguments of the Master of Arts suddenly seemed much more questionable when invoked by the Master of Theology’.¹⁰⁹ Often the philosophical questions that held dangerous implications for Wyclif’s theology and politics were intimately related to logical and mathematical problems, as Norman Kretzmann has demonstrated on the

¹⁰⁶ Hudson and Kenny, ‘Wyclif, John’, in *ODNB*. In fact, J. I. Catto argues that ‘there is now good reason to believe that he was a member of the Richmondshire family of Wyclif of Wycliffe’: ‘Wyclif and Wycliffism’, p. 187.

¹⁰⁷ Robson, *Wyclif*, p. 11.

¹⁰⁸ The term ‘fundamentalism’ is itself of twentieth-century origin. However, Frances McCormack gives two examples of the sort of common misconception about Wyclif that I am thinking of: ‘the first is that Wyclif endorsed a doctrine of *sola scriptura*’; ‘the second [...] is that Wyclif’s exegetical program ruled out the possibility of the acknowledgement of figurative tropes’ (McCormack, *Chaucer and the Culture of Dissent*, p. 111). The (misunderstood) figure of Wyclif has become a talisman for some modern protestant fundamentalist groups, such as the evangelical *Wycliffe Bible Translators*, who would embrace both a self-sufficient and a literal interpretation of scripture (see <http://www.wycliffe.org.uk/> [accessed 9 January 2013]).

¹⁰⁹ Robson, *Wyclif*, p. 17.

subject of indivisibles and the continuum.¹¹⁰ This is by no means surprising. Kantik Ghosh, in his study of ‘Logic and Lollardy’, notes that ‘Wyclif’s own contributions to the development of late-medieval logic, as recent scholars have begun to explicate, are substantial’.¹¹¹ It was in the context of an emerging rejection of Wyclif’s philosophical and logical opinions (as well as his theological ones) that the series of controversies with Ralph Strode took place. These I discuss at more length below, in relation to Chaucer’s *Troilus and Criseyde*.

Wyclif died in 1384. As Herbert Workman wrote, ‘one difficulty in any life of Wyclif is to know at what point to conclude,’ adding, ‘to end with Wyclif’s death were absurd’.¹¹² The reason is that significant aspects of Wyclif’s reputation, such as his extreme necessitarianism, were shaped in the three decades immediately following his death, and fixed by the Oxford commission of 1411, which condemned a list of propositions plucked from Wyclif’s writings: in the question of necessity and free will, the condemnations constitute a grossly unfair presentation of his views, as Anthony Kenny has argued.¹¹³ The extent to which Chaucer himself may have played a part in distorting Wyclif’s philosophy in the eyes of his contemporary audience will be discussed in Chapter 2 of this thesis.

Ralph Strode:

Concerning Ralph Strode’s life, career and connections, our information is much more limited and uncertain. For the majority of the twentieth century,

¹¹⁰ Norman Kretzmann, ‘Continua, Indivisibles, and Change’, pp. 31-65. Admittedly, it is not necessarily true that all of Wyclif’s theological positions developed organically from his early philosophy, as Gordon Leff warns. See, ‘Metaphysics in Wyclif’s Theology’, pp. 218-19.

¹¹¹ Ghosh, ‘Logic and Lollardy’, p. 258.

¹¹² Workman, *John Wyclif*, I, p. ix.

¹¹³ Kenny, *Wyclif*, p. 31.

considerable doubt lingered over whether the Merton scholar by that name was identical with the London lawyer, friend of Geoffrey Chaucer and dedicatee of *Troilus and Criseyde*. Since Rodney Delasanta's influential article of 1991, the probability that the two men were in fact one and the same has generally been considered sufficient to warrant the conclusion that the *Troilus* was indeed dedicated to a man philosophical not merely in temperament, but also in training and, at least for a time, in profession. Delasanta was rightly interested in the consequences for Chaucer studies of this conclusion; unfortunately his presentation of Strode as a 'Thomistic philosopher' facilitated an investigation into Chaucer's own philosophy only in general terms. The Oxford Strode, it should be emphasised, was a philosopher in the sense that that term was regularly applied in the fourteenth century: that is to say, he was primarily what we could call a logician. All of Strode's surviving works are explicitly logical in nature: treatises on *Consequentiae*, *De arte logica*, *De principiis logicalibus*, *De suppositionibus*, *Insolubilia*, and the *Obligationes*, which originally formed a single work, the *Logica*, written in or soon after 1359.¹¹⁴ In this field Strode achieved considerable lasting and widespread renown. As Delasanta himself acknowledges, 'a century after his death, Strode's works on logic were part of the curriculum at the University of Padua and published there and in Venice'.¹¹⁵ It will be one of the contentions of this thesis that Delasanta was far from correct to view Strode's logical interests as merely 'of limited use' to Chaucer studies.¹¹⁶

¹¹⁴ See Sharpe, *A Handlist*, pp. 452-53. See also North, 'Strode, Ralph', in *ODNB*; and Ashworth and Spade, 'Logic in Late Medieval Oxford', p. 57, who give Oxford, Bodleian Library MS canon. misc. 219, fols 13^{ra}-52^{vb} as the one known surviving complete text of Strode's *Logica*.

¹¹⁵ Delasanta, 'Chaucer and Strode', p. 205.

¹¹⁶ Delasanta, 'Chaucer and Strode', p. 217.

Furthermore, it is important that Strode's work be seen in the context of his predecessors at Merton, the so-called 'Oxford Calculators'. In particular, Strode expressed great admiration for Bradwardine, who he called 'the first among the modern philosophers of nature' ('princeps modernorum physicorum') in his treatise on *Insolubles*.¹¹⁷

As far as we can tell, Strode probably ended his scholastic career a little before 1373, since 'soon after the references to Strode cease in the Merton records a "Radulphus Strode" obtained a reputation as a lawyer in London', being sworn in as Common Pleader of the City of London in that year.¹¹⁸ Nevertheless, it was after this move that the series of controversies between Wyclif and Strode were conducted (of which only Wyclif's responses survive), implying that Strode was by no means intellectually inactive during the period in which Chaucer would have known him. Although the logical elements of Strode's objections to Wyclif are marked and of great significance, they have never been fully explored. Neither has the acknowledged relation between the controversy and the famous soliloquy on necessity in the *Troilus* received as much attention as it deserves.

The Development of the Controversy over Future Contingency

in the Fourteenth Century

In this final section of the Introduction, I would like to describe one particular controversy that, in the fourteenth century, was largely conducted

¹¹⁷ Spade, 'Insolubilia and Bradwardine's Theory of Signification', in *Lies, Language and Logic*, Chapter 4, p. 116: citing Erfurt, University Library MS 255, fol. 3^{vb} (Spade's translation).

¹¹⁸ Gollancz, 'Strode, Ralph', in *DNB*, LV, pp. 58-59. This passage is also quoted by Delasanta in 'Chaucer and Strode', p. 206. It is Gollancz, in this entry, who first makes the, perhaps natural but ultimately improbable, suggestion that Strode may have himself been the *Pearl*-poet (p. 58).

through the medium of logic. It is a controversy that has considerable repercussions in Middle English literature, as I shall show. It concerns the possibility and nature of a contingent, rather than a predetermined, future. The following survey will focus largely on English thought, not merely because this thesis will deal with English literature, but crucially because it was in England that this controversy was most prolonged, fiery and fruitful.

The background of the problem lies, unsurprisingly, with Aristotle, and in Aristotle the question is entirely logical, rather than in any sense theological.¹¹⁹ For Aristotle some form of necessitarianism is an implication of the simple law of non-contradiction, unless that law is carefully qualified. In the ninth chapter of the *De interpretatione*, Aristotle proceeds from the principle that in the case ‘of contradictory statements [...] it is necessary for [either] one or the other to be true or false’ to present the argument that ‘it is necessary for the affirmation or the negation to be true or false’.¹²⁰ The consequence of this line of reasoning is that

it follows that nothing either is or is happening, or will be or will not be, by chance or as chance has it, but everything of necessity and not as chance has it (since either he who says [that it is or will be] or he who denies is saying what is true).¹²¹

In other words, if I state that you will go to the library next Thursday, then that statement must either be true or false: you either will go or you will not – it surely cannot be both at once. Yet if my statement is true a week in advance of your

¹¹⁹ As G. R. Evans recognises in her assessment of Bradwardine’s contribution to the debate: *Fifty Key Medieval Thinkers*, pp. 148-49.

¹²⁰ Actually Aristotle has already qualified the principle of non-contradiction with regard to universal subjects in non-universal propositions, but that qualification is not immediately relevant, except as a precedent of the principle’s need for careful qualification. See, *De Interpretatione*, 17b, trans. by Ackrill, p. 28.

¹²¹ *De Interpretatione*, 18b, trans. by Ackrill, p. 29.

action, then, when it comes to it, you must go to the library next Thursday, otherwise my statement will not have been true after all; and vice versa. Furthermore, it makes no difference if such propositions have, in fact, ever been made or not, since it would be absurd to think that a man making a prediction ten thousand years before an event is the cause of that event, just because he predicted it. Thus for Aristotle the question of necessitarianism is entangled in the fabric of the logical nature of things: the most basic logical principle of all, the law of non-contradiction, is the source of the problem.

However, Aristotle asserts that future events are contingent before they happen, and therefore makes a distinction between saying ‘everything that is, is of necessity, when it is’ and saying ‘*unconditionally* that it is of necessity’ (in the Latin of the Boethian translation, ‘non enim idem est omne quod est esse necessario quando est, et simpliciter esse ex necessitate’).¹²² Thus it has been argued that ‘Aristotle believed that any statement which asserts or denies, concerning a contingent event, that it is going to occur, is neither true nor false, the world being yet indeterminate with regard to the existence or non-existence of things’.¹²³ In order to hold this, he is forced to qualify the law of non-contradiction as regards ‘things that are not but may possibly be or not be’.¹²⁴ Throughout the following discussion, it is important to bear in mind that what is really at issue in this question is the nature of *logic*, as much as, if not more than, the nature of God.

¹²² Aristotle, *De interpretatione (Peri hermeneias)*, 19a, trans. by Boethius. The English is taken from *De Interpretatione*, trans. by Ackrill, p. 30 (my emphasis).

¹²³ Richard Taylor, ‘Future Contingencies’, p. 1. It is not universally agreed that this is Aristotle’s solution to the problem. See, for example, Robert Sharples’ discussion of the problem in relation to Boethian thought: ‘Fate, prescience and free will’, pp. 208-214.

¹²⁴ Aristotle, *De Interpretatione*, 19b, trans. by Ackrill, p. 30.

Boethius' translation of the *De interpretatione* was one of only two Aristotelian works that, along with Boethius' translation of the *Isagoge* of Porphyry, formed the *Logica Vetus* (the other work being Aristotle's *Categories*). Before the rediscovery of other Aristotelian works in the twelfth century, these three texts alone formed the logical element of the trivium.¹²⁵ Consequently, Aristotle's treatment of the problem was much discussed, and in a Boethian aspect. After Boethius, 'medieval philosophers [...] found in [Aristotle's analysis] a thorny problem of reconciling liberty with divine omniscience'.¹²⁶ The logical problem, therefore, assumed a theological dimension that became highly controversial in the late thirteenth century. Boethius' own solution was threefold.¹²⁷ Firstly, he distinguished between so-called absolute and conditional necessity, as Chaucer's Nun's Priest tries to explain, not entirely helpfully (vii. 3245-50).¹²⁸ Secondly, he asserted that 'the nature of knowledge is determined by the nature of the knower rather than by that of the thing known'. Finally, he adduced the concept of the 'Eternal Present', 'the notion that to God all time is as the present is to us'. This last aspect of Boethius' solution also forms part of the orthodox backbone of Wyclif's later solution to the problem.

In 1277, the Bishop of Paris, Stephen Tempier, published his infamous condemnation of 219 theological, philosophical and logical errors, which has been hailed by some as a kind of watershed in the history of ideas.¹²⁹ It has been seen

¹²⁵ Uckelman, 'Logic and the Condemnations', p. 209.

¹²⁶ Richard Taylor, 'Future Contingencies', p. 1.

¹²⁷ The summary below (and quotations) are taken from Robert Sharples, 'Fate, prescience and free will', pp. 216-17. See also *Boece*, v. pr. 6, 1-14.

¹²⁸ See Chapter 1.

¹²⁹ Pierre Duhem, for instance, called the 1277 condemnations 'the birth certificate of modern physics' (*Medieval Cosmology*, p. 4.) For a brief introduction and translated selection from the condemnations, see 'The Condemnation of 1277', in *Source Book in Medieval Science*, pp. 45-50.

as a response to a determinism that grew from the Aristotelian rediscoveries: ‘the Condemnation of 1277 was intended to subvert philosophical necessitarianism and determinism that had become characteristic of philosophical thought in the thirteenth century and that had been derived from Greco-Arabic sources, especially from the works of Aristotle and his ardent admirer and commentator, Averroes’.¹³⁰ To this end, it was necessary to emphasise the *potentia Dei absoluta*, the absolute power of God, in the face of a naturalistic determinism which implied the ‘necessity of divine action’.¹³¹ Tempier’s list includes condemnations of the propositions that God cannot know future contingents, since divine foreknowledge would be a necessary cause of future events (15), and ‘that nothing happens by chance, but everything comes about by necessity, and that all things that will exist in the future will exist by necessity’ (‘Quod nichil fit a casu, set omnia de necessitate eueniunt, et quod omnia futura que erunt, de necessitate erunt’) (102).¹³² About a century after Tempier’s intervention, a proposition of Wyclif’s would, almost word for word, fall foul of the latter condemnation.

Shortly afterwards, Archbishop of Canterbury Robert Kilwardby published in Oxford a list of 30 erroneous propositions on grammar, logic and philosophy. The motivations, causes and possible association of these condemnations are

¹³⁰ Grant, ‘Condemnation of 1277, God’s Absolute Power, and Physical Thought in the Late Middle Ages’, p. 212.

¹³¹ *Philosophy in the Middle Ages*, ed. by Hyman and Walsh, p. 541. This book provides a collection of extracts from influential philosophical texts of the Middle Ages. It contains an extensive selection of the 219 condemned propositions (pp. 543-49). The quotation is taken from Hyman and Walsh’s commentary.

¹³² English from *Philosophy in the Middle Ages*, ed. by Hyman and Walsh, p. 546; Latin from *La condamnation parisienne*, ed. and trans. by David Piché, p. 86.

complex and controversial.¹³³ However, whether or not Kilwardby's condemnations were a response to Tempier's, the condemnation of one particular proposition on Kilwardby's list is highly significant: namely proposition 8, 'Item quod omnis propositio de futuro vera est necessaria' ('Again, that every true proposition about the future is a necessary proposition').¹³⁴ Kilwardby's condemnations are clearly allied with the conservative reaction: God's absolute power to perform his will must be saved from the threat of a logical or natural necessitarianism at all costs. The trouble was that Aristotle's solution in the *De interpretatione* of refusing to assign determinate truth-values to future propositions itself seemed to fall foul of Tempier's condemnations by undermining God's foreknowledge: if a proposition is neither determinately true nor false, how can God know it absolutely to be true? Kilwardby's condemnation appears to assert that a future proposition can be true and simultaneously contingent: that is, a statement about the future can be true even though there is a possibility that the opposite will happen. If granted, this position would both safeguard God's ability to know the future truly and preserve his absolute power to have created the world, and intervene in that world, in any way He wished. Working out this apparent contradiction would exercise the greatest minds of the fourteenth century. As C. H. Lawrence observes:

Like most attempts at censoring ideas, the condemnations were counter-productive. Rather than stopping debate [...], they exacerbated it.¹³⁵

¹³³ Uckelman gives an excellent summary of these issues: 'Logic and the Condemnations', pp. 203-213. Uckelman argues, however, that the 1277 condemnations had rather less impact on the development of late-medieval logic than might have been expected.

¹³⁴ Uckelman, 'Logic and the Condemnations', p. 217.

¹³⁵ Lawrence, *The Friars*, p. 159. Lawrence is referring specifically here to the effect of the condemnations on the controversy over the soul and the body in the late thirteenth century; but his remarks are equally applicable to the controversy over necessity and contingency.

At the end of the thirteenth century, one thinker more than any other set the tone of much fourteenth-century thought on this question: ‘it was with Duns Scotus (c. 1266 or 1270-1308) above all that the seal of reaction against Thomism and Arabian determinism was firmly set’.¹³⁶ Broadly speaking, Duns’ position was ‘voluntarist’: against Aquinas’ emphasis on the intellect, he argued that the will was primary. When combined with a strong emphasis on the *potentia Dei absoluta* after the condemnations of 1277, Duns’ philosophy produced conditions ripe for the growing emphasis on contingency that evolved in the fourteenth century.

Although many aspects of his thought have been defined in opposition to Duns Scotus, William of Ockham followed the trajectory of Duns’ thought on contingency, and thus established the first half of the fourteenth century as a period of remarkable philosophical and theological daring. Following Duns, Ockham, in his ‘attempt to free God from human calculations, discounted the causality of Thomism and Aristotle, and placed all emphasis upon the unconstrained play of God’s will: it was a supreme law unto itself and permitted no order or prediction’.¹³⁷ Ockham’s pronounced empiricism also helped to focus the attention of subsequent thinkers on the subject of future contingency, since his denial of the validity of many of the traditional questions upon the *Sentences* resulted in a reduction of the scope of the commentaries that followed. The remaining areas of inquiry henceforth received an even greater degree of scrutiny than they had before: ‘some of the greatest disputes were directly over grace and

¹³⁶ Leff, *Medieval Thought*, p. 262.

¹³⁷ Leff, *Medieval Thought*, p. 260.

future contingents, for it was there that faith and reason came into direct conflict'.¹³⁸

Ockham himself wrote a *Tractatus de praedestinatione et de praescientia Dei et de futuris contingentibus* (*Treatise on Predestination, the Foreknowledge of God and Future Contingents*), in which he argues against 'those who suppose that passive predestination and passive foreknowledge are real relations in the [person who is] predestinate and foreknown'.¹³⁹ His method of proof is noteworthy because Ralph Strode utilises a version of it in his controversy with Wyclif over the same question. Ockham asks whether or not a man, A, who is now predestinate can commit the sin of final impenitence. If not, then he is necessarily saved, which Ockham thinks absurd. If he can, and does, then either the real relation of being predestinate is destroyed (in which case A was once really predestinate but is no longer, which makes the idea of predestination in itself meaningless), or A is simultaneously predestinate and reprobate (which is obviously absurd).¹⁴⁰ As Marilyn McCord Adams and Norman Kretzmann point out, Ockham makes a similar argument, structurally speaking, concerning real relations in the first book of his commentary on the *Sentences*, demonstrating the growing importance of related questions within the now narrower scope of that tradition too.¹⁴¹ There, Ockham makes use of conventional logical and 'physical'

¹³⁸ Leff, *Medieval Thought*, p. 261.

¹³⁹ Marilyn McCord Adams and Norman Kretzmann suggest that Ockham was perhaps writing in response to Alexander of Hales in their notes on Question 1 of the *Tractatus*: William of Ockham, *Predestination*, pp. 34-36.

¹⁴⁰ William of Ockham, *Predestination*, pp. 34-35. As Adams and Kretzmann's notes helpfully explain, by a 'real relation' Ockham means something like 'the real relation of filiation in a child'. Reprobation is the theological term for the divine predestination of sinners to hell.

¹⁴¹ William of Ockham, *Predestination*, p. 35 (footnote 3). Ockham's Commentary (*Scriptum in librum primum Sententiarum*), Distinctio 30, Quaestio 2, can be read online. See also Leff,

examples (such as ‘sitting’ and ‘standing’, and the kindling of fire) rather than purely theological terms, demonstrating that these were, at root, logical questions.

Against Ockham and the sceptics that followed him stands the towering figure of Archbishop Bradwardine, hailed by Chaucer as an authority on this matter in the Nun’s Priest’s Tale (vii. 3242). Bradwardine also emphasised the importance of the divine will, but turned this argument into a robust defence of a predestinarian stance.

The outstanding feature of *De Causa Dei* was its refusal to concede anything to fact or to natural evidence. [...] He judged everything in divine terms; and the effect of his system was to make all creation merely the extension of the divine will.¹⁴²

As such, all human actions, although freely willed, were subject to the overriding will of God, whose power extended to future events too. As Leff puts it, ‘the future was not only known to God but willed by him: hence contingency far from being outside his knowledge was the product of His willing’.¹⁴³ Consequently, divine revelation was the only secure basis for knowledge of the future. It is important to stress, however, that Bradwardine’s reputation as an *unnuanced* determinist is undeserved, as recent accounts of him have made clear.¹⁴⁴

Medieval Thought, pp. 260-61, who describes the ‘shrinkage’ of commentaries on the *Sentences* after Ockham.

¹⁴² Leff, *Medieval Thought*, pp. 297-98.

¹⁴³ Leff, *Medieval Thought*, pp. 297-98.

¹⁴⁴ As Weisheipl laments, ‘unfortunately Bradwardine still has this reputation among scholars whose grounding in St. Paul, St. Augustine and St. Thomas Aquinas is not what should be expected in such difficult matters’: ‘Ockham and the Mertonians’, p. 658. For instance, G. R. Evans’s concise summation of Bradwardine’s position that ‘he supported the doctrine of necessity’ would certainly be unpalatable to some recent critics (see *Language and Logic of the Bible*, p. xix). I do think, however, that Weisheipl very much overstates his position when he claims that the object of Bradwardine’s attacks ‘had nothing to do with scepticism of God’s absolute power’, his treatise being ‘a theological work’ (p. 645). As I am attempting to demonstrate, the question was, throughout the fourteenth century, a very tangled logico-theological problem. For a similar view of Bradwardine to Weisheipl’s, see Oberman, *Bradwardine*. In partial contrast to Weisheipl and Oberman, see Leff, *Bradwardine and the Pelagians*, esp. pp. 11-13. Leff does find a sense in

Robert Holcot took a position that could be called the polar opposite of Bradwardine's. Holcot was convinced (as indeed Bradwardine was) that a simplistic argument that the divinely revealed future must come about of necessity not only destroyed man's free will, but God's too: his response, however, was radically different from Bradwardine's. Katherine Tachau summarises his position thus: 'there is a class of statements [...] about the future such that the truth of any statement which is a member of the class remains contingent even after the statement's revelation'.¹⁴⁵ Holcot suggests 'that God, rather than be misled in His knowledge of future contingents, knows only what is necessary: contingents are outside his purview'.¹⁴⁶ The extraordinary and shocking corollary that Holcot drew from this argument was that God could deceive men by revealing as certain something that was as yet only contingent. Indeed, according to Holcot, God had done just this on many occasions in the Scriptures. As Gordon Leff comments, the sceptics' 'switch from God's ordained to His absolute power involved throwing all certainty, morality, and indeed probability into the melting-pot: in their place anything could emerge'.¹⁴⁷

The brief survey of the development of fourteenth-century thought on logico-theological determinism that I have just given omits many of the characters and most of the detail that any historian of logic, science or theology would consider essential to a full analysis. However, it perhaps serves to explain the agenda of those particular thinkers whose work may have been known to Chaucer

which 'it is not unjust to talk of Bradwardine's determinism', although his analysis is also carefully nuanced (p. 124).

¹⁴⁵ Streveler and Tachau, 'Introduction', in Holcot, *Seeing the Future*, p. 2.

¹⁴⁶ Leff, *Medieval Thought*, p. 292.

¹⁴⁷ Leff, *Medieval Thought*, p. 289.

and his circle. They include two contemporaries of Chaucer, both Oxford logicians of considerable stature, but the first now more famous as a theologian and the second as a dedicatee of the *Troilus*. I mean of course John Wyclif and Ralph Strode.

Wyclif's position on predestination has been misrepresented since his own time. As Anthony Kenny summarises,

One of the heresies for which Wyclif was condemned after his death was the doctrine that everything happens by absolute necessity. As a result of this condemnation, he has been reputed an extreme determinist, and his theory of the relationship between the power of God and the acts of men has often been described as a rigid predestinarianism. But in fact the theory of necessity contained in his philosophical writings was a carefully nuanced one; his system left as much room for human freedom as that of any comparable theologian.¹⁴⁸

While Wyclif certainly held that there was a sense in which future, as well as present events, come about of necessity, his position was, broadly speaking, not too different from Bradwardine's. At one level, Wyclif's solution to the problem does seem to put less emphasis on the absolute power of God, but only by putting more emphasis on human free will. For Wyclif, it is both true that an individual acts as he does because God wills him to do so and that God wills it because the individual acts as he does. As Kenny argues,

We can now see how wrong it is to suggest that Wyclif went beyond contemporary theologians in limiting human freedom in the interests of divine omnipotence. On the contrary, he took the highly unusual step of safeguarding human freedom by attributing to it control over the eternal volitions of God himself.

[...]

¹⁴⁸ Kenny, *Wyclif*, p. 31.

Wyclif's solution to the antimony may seem to involve the absurdity of causation which operates backwards in time. That is not necessarily so, given his doctrine that all things are present with God.¹⁴⁹

Even from these remarks, it should be clear that Wyclif's theological and logical positions on this question are careful and broadly orthodox, utilising aspects of the Boethian, the voluntarist and the Bradwardinian solutions to the problem of future contingency.

Yet within half a century of his death, he became infamous for holding a simplistically necessitarian doctrine. One reason for this may very well be, as Anne Hudson suggests, that although almost all elements of Wyclif's heresy can be traced back to earlier thinkers, 'the fact that these distasteful notions were no longer confined within the precincts of a university debating hall' made any hint of heterodoxy in Wycliffite theology much more noticeable and dangerous.¹⁵⁰ Another reason for Wyclif's reputation as an extremist, however, must be his insistence that the proposition that 'omnia que evenient de necessitate evenient' ('everything that comes about comes about out of necessity') is in some way true.¹⁵¹ The verbal proximity of Wyclif's aphorism to the proposition, condemned by Tempier, that 'omnia de necessitate eueniunt' is probably an indication of the strength of Wyclif's reaction to the increasingly radical positions of what Bradwardine would call the 'Pelagian' theologians after 1277. How late fourteenth-century literature, especially that of Chaucer, may have utilised this

¹⁴⁹ Kenny, *Wyclif*, pp. 37-38.

¹⁵⁰ Hudson, *Lollards*, p. 142.

¹⁵¹ See 'Responsiones ad argumenta Radulfi Strode', in *Opera Minora*, pp. 175-200 (p. 181); Wyclif, *Tractatus de Potestate Pape*, p. 313; *Wyclif: Trialogus*, pp. 289-90 (iv. 13: this passage is also cited by Michael Wilks, 'The Early Oxford Wyclif', p. 37); there are numerous other examples of the phrase in the *Trialogus*.

dangerous proposition in the misinterpretation and parodying of Wyclif's logical and theological positions will be a major concern of Chapter 2 of this thesis.

As part of the series of controversial correspondences that the pair enjoyed with each other, Ralph Strode engaged Wyclif on the problem of predestination. I will examine the Chaucerian relevance of this controversy in some detail in the chapter on *Troilus and Criseyde*. At this point it is sufficient to note that Strode's lines of attack were entirely conventional. One example of this fact would be Strode's use of Ockham's argument against strict predestination. Although Strode's side of the correspondence has been lost, we know what arguments he made because Wyclif quotes them back to him. The third and the fourth arguments quoted in Wyclif's 'Responsiones ad argumenta Radulfi Strode' run as follow:

Tercium autem argumentum stat in isto, quod *Petrus predestinatus non potest peccare mortaliter, vel excommunicari a Deo, sed omnis prescitus quantumcunque prelacia magna prefulgeat semper excommunicatur a Deo et continue peccat mortaliter.*

[...]

Quartum argumentum stat in isto quod *videtur unam personam esse membrum ecclesie una vice et alias ipsum esse dyabolum, cum Christus qui mentiri non potuit vocavit Petrum Sathanam, et ipse Petrus fuit membrum ecclesie post et ante.*¹⁵²

(However, the third argument stands in this, that Peter, having been predestined, cannot commit mortal sin, or be cut off from God, but everyone foreknown [i.e. to be damned], however resplendent he might be in his great preeminence, is always cut off from God and commits mortal sin continually.

[...]

¹⁵² Wyclif, 'Responsiones ad Argumenta Radulfi Strode', in *Opera Minora*, pp. 175-200 (pp. 178-79) (Loserth's emphases).

The fourth argument stands in this, that it seems one person might be a member of the church one moment and another moment be a devil, since Christ, who cannot lie, called Peter Satan, and the same Peter was a member of the church before and after.)

A strict understanding of predestination seems to imply that an elect man cannot sin mortally and that a man can be elect one moment (for Wyclif defined the Church as the sum of the elect) and reprobate the next (a member of Satan). Strode's objection is nothing new, being a clear reworking of Ockham's earlier objection to predestination as a 'real relation' in the predestinate man, nor is his use of St. Peter as an exemplar innovative (Ockham himself uses the example of Peter in his treatise on predestination and future contingency).¹⁵³ Furthermore, in making his fourth argument, Strode assumes Wyclif's reliance on the counter-Holcotian assertion that 'Christus [...] mentiri non potuit' ('Christ could not lie'), implicitly placing Wyclif firmly within the Bradwardinian tradition.

The contemporary controversies about future contingency with which Chaucer might have been familiar, should thus be seen as continuations and developments of debates earlier in the fourteenth century. They are also the legacy of a much older tradition which viewed the problem as primarily logical rather than theological. In the Wyclif-Strode correspondences, its logical dimension was still vital, as I will argue in Chapter 2.

¹⁵³ See, for example, William of Ockham, *Predestination*, p. 78.

CHAPTER 1:

MATHEMATICS AND CONTINGENCY IN

THE CANTERBURY TALES

Chaucer and the Logicians

The extent to which Chaucer knew and read the works of fourteenth-century philosophers, scientists and logicians has been robustly debated over the last two decades. Critics such as William Watts and Richard Utz have been highly suspicious of the evidence for Chaucer's 'direct engagement' with the writings or positions of fourteenth-century philosophers and logicians.¹⁵⁴ Some, like Alastair Minnis, remain unconvinced by Robert Pratt's argument that Chaucer relies on Holcot's commentary on the *Book of Wisdom* for numerous details in the Nun's Priest's Tale, following it 'closely in theory after theory, detail after detail, and illustration after illustration'.¹⁵⁵ Yet over the last decade scholars have become less sceptical. This is not so much because of the sudden emergence of any fresh 'hard evidence' (which has always been rather thin on the ground), but more because of an increasing recognition of the extent to which Chaucer's work reveals quite a precise awareness of fourteenth-century philosophical, scientific and logical issues.

¹⁵⁴ Watts and Utz, 'Nominalist Perspectives', p. 163.

¹⁵⁵ Pratt, 'Latin Sources', p. 538; Minnis, 'Looking for a Sign', p. 144. Neil Cartlidge has recently argued that Chaucer may have been influenced by other passages from Holcot's *Wisdom Commentary* in his construction of the Cook's Tale and the Physician's Tale: see 'Wayward Sons and Failing Fathers'. See also Watts, 'Chaucer's Clerks', pp. 151-52.

It could even be argued that there is more than enough explicit testimony within the Chaucerian texts themselves to put the validity of such approaches beyond question. As Rodney Delasanta more or less proved, the Ralph Strode known to Chaucer was the Oxford logician of that name.¹⁵⁶ It is this Strode to whom Chaucer chooses to dedicate *Troilus and Criseyde*, under the epithet ‘philosophical’ (v. 1857). Given Strode’s career as a logician, there should be little doubt as to which aspect of philosophy Chaucer had in mind when he commended his poem to his friend. Yet it is clear that at least some early readers of the text understood very well who and what Strode was, and under what aspect he would be a useful critic of the poem; for as both Karl Reichl and Kathryn Lynch point out, ‘variant readings in two manuscripts of *Troilus and Criseyde* substitute “sophistical” for “philosophical” Strode, underscoring the linkage between philosophy and the more technical sophisms of formal logic and dialectics’.¹⁵⁷ Although I am not convinced by Lynch’s attempt to argue, from silence, the possibility that Chaucer may have had an Oxford or Cambridge arts education, neither do I follow Reichl’s logic that it is therefore ‘highly unlikely that Chaucer had read [Strode’s] technical [...] treatises’.¹⁵⁸ On the contrary, it seems humanly improbable that Chaucer, writing a poem featuring a character who could ‘wel and formely arguwe’ (iv. 497), would not have taken the time to read the one treatise on *consequentiae* that he certainly did have access to, especially if he was planning to ask his logician friend (and the work’s author) to ‘correcte’ his poem (v. 1858). Both Lynch and Reichl underestimate the tenacity of Chaucer as an interested amateur. There is simply no reason to assume that a man who translated Boethius and who wrote at least one treatise on astronomy would not have done some preliminary research on logical reasoning in preparation for the *Troilus*. There is also

¹⁵⁶ Delasanta, ‘Chaucer and Strode’.

¹⁵⁷ Lynch, *Visions*, p. 9; Reichl, ‘Chaucer’s *Troilus*’, p. 134. The two manuscripts in question are BL MS Harley 3949 and Oxford, Bodleian Library Rawl. poet 163. The term ‘sophistical’ almost certainly does not mean simply a lover of specious argument, as we might interpret the word in modern English. As Edith Sylla explains, participants in disputations *de sophismatibus* at Oxford were particularly known as ‘*sophistae*’. See Sylla, ‘Oxford Calculators’, p. 545.

¹⁵⁸ Reichl, ‘Chaucer’s *Troilus*’, p. 134; See Lynch, *Visions*, pp. 18-20.

no reason why Chaucer should have found Strode's *Consequentiae* too difficult either to understand or enjoy.¹⁵⁹ In fact, it seems highly likely that *Troilus* explicitly refers to a scholarly controversy involving Strode, as I will discuss below. If this is right, our view of Chaucer as an author with a general interest in philosophical questions must be modified to that of a diligent amateur who took specific interest in philosophy, science and logic, and even participated, through his own literary medium, in the controversies of his time.

It was perhaps through Strode that Chaucer made acquaintance with the works or ideas of Bradwardine, Holcot and even Walter Burley. Strode was something of a fan of Bradwardine's logical work, as he makes clear in his treatise on *Insolubilia*. Having surveyed the approaches of older logicians, 'who correctly understood little or nothing of insolubles' ('qui parum vel nihil de insolubilibus recte sapuerunt'), Strode calls Bradwardine 'the foremost of the modern natural philosophers' ('princeps modernorum physicorum') and 'the first to discover something valuable about insolubles' ('qui aliquid quod valuerit de insolubilibus primitus advenit').¹⁶⁰ It is thus entirely plausible that Strode discussed with his poet friend, not only Bradwardine's treatment of the problem of future contingency in his *De causa Dei*, for which Chaucer primarily seems to have known him (the Nun's Priest's Tale, VII. 4432), but also his famously innovative approach to *insolubilia*. As I have suggested, Strode's own series of controversies with Wyclif over predestination and contingency is, to a certain extent, a re-run of the earlier controversy between Bradwardine and Holcot, both members of Richard of Bury's literary and philosophical circle.¹⁶¹

¹⁵⁹ Some (limited) work has already been done on the relation of the *Troilus* to Strode's *Consequentiae*, although my approach is rather different. See Griffin, 'Chaucer's "Troilus and Criseyde"'.
¹⁶⁰ Spade, 'Insolubilia and Bradwardine's Theory of Signification', in *Lies, Language and Logic*, Chapter 4, p. 116 (note); citing Erfurt, University Library MS 255, fol. 3^{vb}.

¹⁶¹ There has also been some critical discussion about whether Chaucer relies to some extent on a work traditionally attributed to Walter Burley, the Oxford logician primarily responsible for breathing new life into the somewhat stagnant terminist tradition of logic in England, in the Wife of Bath's Prologue. However, the text in question (the *De vita et moribus philosophorum*) is not strictly a logical treatise, as indeed Holcot's commentary upon Wisdom is not, and indeed it may not even be by Burley at all. More work would need to be done to demonstrate a firm connection here; but the possibility remains an intriguing one. See Robert Steele, 'Chaucer and the "Almagest"'; Bennett, *Chaucer at Oxford*, p. 59; Young, 'Chaucer's Aphorisms', pp. 6-7; and

Chaucer twice refers explicitly to the *sophismata* in *The Canterbury Tales*. The Squire compares the tercelet's casuistry to 'sophymes of [...] art' (v. 554) in his tale, which Jack Bennett glosses as a reference to the 'sophismata logicalia'. Bennett sees in this reference evidence that Chaucer shared 'the delight in specious argument for its own sake which characterizes the later fourteenth century'.¹⁶² This is undoubtedly true. Yet, again, there has been less critical attention to the fact that Chaucer's reference is to actual 'sophymes' rather than to sophistical reasoning in general. That is, if this reference is an indication of Chaucer's interest, it is an interest in the specific manifestations of pseudo-logical reasoning in the arts syllabus, as much as in the underlying argumentative thought process. The other reference is in the Clerk's Prologue, where the Host says to the Clerk, 'I trowe ye studie aboute som sophyme' (iv. 5). Timothy O'Brien suggests that the sophism in question is specifically Jankyn's solution to the problem of dividing the fart. At the very least there is no reason to think that Chaucer's references to sophisms could not have been informed by an awareness of particular sophismatical texts.¹⁶³

Friedman, 'Alice of Bath's Astral Destiny', p. 174. For a brief discussion of Burley's role in the resurrection of English terminism, see Spade, 'Late Medieval Logic', p. 403.

¹⁶² Bennett, *Chaucer at Oxford*, p. 83.

¹⁶³ O'Brien, 'Ars-Metrik': pp. 14-15. John A. Alford had previously argued that the Clerk and his 'sophyme' should be read in juxtaposition with the Wife of Bath: see 'The Wife of Bath Versus the Clerk of Oxford'.

The Summoner's Tale

The Summoner's Tale and Ars-metrike

O'Brien's suggestion that the Clerk's 'sophyme' is the Summoner's problem of part-division draws its strength from the prevalence in the Summoner's Tale of a range of logico-scholastic technical terms: 'probleme' (2219), 'question' (2223), 'impossible' (2231), 'ymaginacioun' (2218), and 'demonstracion' (2224).¹⁶⁴ O'Brien's own focus is largely 'scientific': he explains Thomas's 'impossible', an Anglicisation of the Latin *impossibilium*, as a kind of sophism with particular reference to John Buridan and Nicole Oresme.¹⁶⁵ Glending Olson's recent article follows O'Brien in taking a primarily 'scientific' interest in the tale, but grounds his scholarship in the physical aspects of fourteenth-century English logic: he discusses the Oxford Calculators' persistent attempts to devise a systematic treatment of measurement, and the late fourteenth century's renewed controversy over the divisibility of the continuum that was resurrected by Wyclif himself.¹⁶⁶ Both readings are highly persuasive, and my analysis of the *Troilus* will touch on some of the same questions.

It is also possible to provide a slightly different and rather fuller account of Chaucer's presentation of the evolving nature of intellectual investigation in the fourteenth century. Both O'Brien and Olson read Chaucer's pun on 'ars-metrike' as forming one of the string of scholastic technical terms that I listed above; and they thus read the problem of dividing the part solely in terms of later medieval logico-scientific developments. Yet it requires a certain

¹⁶⁴ O'Brien, 'Ars-Metrik', pp. 14-15. This was first suggested by Roy Percy, 'Chaucer's "An Impossible"'. The logical connotations of these terms are easily missed, even by readers interested in the philosophical provenance of elements of Chaucer's language. See for example, Burnley, *Chaucer's Language and the Philosophers' Tradition*, p. 111, who discusses Thomas's 'ymaginacioun' from a medieval 'psychological' perspective, dismissing it as 'a humble faculty' because it is not purely rational. Once 'ymaginacioun' is recognised as a technical term of scholastic logic as discussed above, Thomas's 'ymaginacioun' is transformed into something much more sophisticated.

¹⁶⁵ See also Green, *Crisis of Truth*, Chapter 8 on 'Rash Promises' (esp. p. 320), who discusses the nature and legal status of contracts with impossible conditions in medieval law.

¹⁶⁶ Olson, 'Measuring the Immeasurable'.

modern looseness with terms, a certain conflation of disciplines that in the late Middle Ages would have been regarded as largely distinct, to interpret Chaucer's pun on 'ars-metrike' as relating simply to the fourteenth-century *sophismata* of measurement. When Chaucer says that, 'In ars-metrike shal ther no man fynde, / Biforn this day, of swich a question' (2222-23), the joke is that 'arse-measurement' is a problem particularly of arithmetic. If the lord is to be believed, there have been other, similar questions of arithmetic 'biforn this day', though nothing as devilishly problematic. As I have discussed above, the extent to which the fourteenth-century *sophismata*, especially of the Oxford Calculators, were concerned with physico-mathematical problems has been somewhat exaggerated. Certainly there are plenty of *sophismata physicalia*, which are of great importance in the history of the physical sciences. Yet to be properly understood, these questions must be seen in the larger context of the more typical semantic and linguistic concerns of late-medieval logic. It is stretching the evidence to argue that when he uses the term 'ars-metrike' what Chaucer really meant was simply the *sophismata physicalia* of fourteenth-century logic. Indeed, when Jankyn puts forward his solution to the problem, it is hailed as worthy of 'Euclide' or 'Ptholomee' (2289), the first a geometer and the second an astronomer, and thus both more properly associated with the mathematical quadrivium than the trivium. Again, the occasional use of Euclidean geometry in discussing philosophical problems, such as that of the continuum,¹⁶⁷ or the references to astronomy in some *sophismata*, although useful for demonstrating how Chaucer could so easily assimilate diverse disciplines in his tale, hardly provide convincing reasons to account for Chaucer's use of the precise term 'arithmetic'. Percy's rather complacent assertion that Chaucer's 'parodic licence' means that the extension of 'ars-metrike' to denote sophistic logic 'need pose no real difficulty' is not entirely satisfactory.¹⁶⁸ The reality is slightly more complex: the Summoner's Tale is influenced by, and is commenting upon,

¹⁶⁷ See Olson, 'Measuring the Immeasurable', p. 417.

¹⁶⁸ Percy, 'Chaucer's "An Impossible"', p. 324.

more than a single, uniform academic context: Chaucer's treatment of the fart reveals a concern with the *evolution* of logico-mathematical puzzles in the later Middle Ages.

Chaucer uses the term 'ars-metrike' in relation to the *expectations* of his characters about a division problem: that is why the lord exclaims that no such question had been posed 'biforn this day'. First, then, what was it that Friar John was expecting to divide?

A, yif that convent half a quarter otes!
A, yif that convent foure and twenty grotes!
A, yif that frere a peny, and lat hym go!
Nay, nay, Thomas, it may no thyng be so!
What is a ferthyng worth parted in twelve? (1962-1967)

The divisions the Friar was anticipating are nothing to do with the continuum or other philosophical complexities: indeed, the second example is a deliberately simple sum: $24 \div 12 = 2$. Such examples are highly conventional problems reminiscent of the earlier arithmetical collections, such as the *Propositiones ad acuendos iuvenes*. Given the influence and circulation of that text, discussed briefly in the Introduction, it is very possible that Chaucer specifically knew the puzzles of the *Propositiones* in some form, whether directly or through intermediate collections, and it is even conceivable that he knew them as the 'arismetrica' of Alcuin, as one fourteenth-century English library catalogue seems to have called it.¹⁶⁹

The *Propositiones* contain a number of questions that, both in structure and imagery, bear remarkable similarity to the sort of division that the Friar was expecting to perform. For instance, *Propositio 53* runs:

Quidam pater monasterii habuit XII monachos. Qui uocans dispensatorem domus suae dedit illi ova CCIII iussitque, ut singulis aequalem daret ex eis omnibus portionem. [...] Dicat, rogo, qui valet, quot ova unicuique ipsorum in portione evenerunt, ita ut in nullo nec superabundet numerus nec minuatur, sed omnes, ut supra diximus, aequalem in omnibus accipiant portionem.

(A certain abbot had twelve monks, who, calling the steward of his house, gave him 204 eggs and commanded that he should give an

¹⁶⁹ Folkerts, 'The *Propositiones ad acuendos iuvenes* Ascribed to Alcuin', in *Essays on Early Medieval Mathematics*, Chapter 4, pp. 4-5. See also the relevant entry in James, *Ancient Libraries of Canterbury and Dover*, p. 27.

equal portion of them to each. [...] Let him tell who can, I ask, how many eggs will go as a share to each, such that neither has too many, nor too few, but all receive an equal share, as said above.)¹⁷⁰

The abbot dividing goods between his twelve monks has recourse to his steward to solve the problem: the scenario is reminiscent of Chaucer's narrative. The fact that here the division is $204 \div 12=17$ (as the solution makes clear) may help resolve a seeming inconsistency in the Summoner's Tale. It is clear from the denouement that anything given to Friar John on the understanding that it be split between the whole convent should be divided between thirteen. Yet the Friar, giving examples of the sort of division he is expecting in the passage quoted above, speaks of a division 'in twelve' (1967). If this passage is referring to the sort of conventional 'ars-metrike' that Chaucer had in mind, then there is clearly something more significant about the number twelve than that it is the standard number of brothers in a convent: otherwise, in this passage, Chaucer would have used the example of a division in thirteen, as more consistent with the conclusion of the tale. In fact, the use of the number twelve in division exercises is common in the *Propositiones*. *Propositio 47*, for example, is 'de episcopo qui iussit XII panes in clero dividi' ('about a bishop who orders that twelve loaves be divided amongst his clergy') and there are also twelve clergy to receive the twelve loaves.¹⁷¹

One reason that division into twelve parts occurs particularly often in the *Propositiones* is that Alcuin, or whoever composed the collection, equated the area unit of an 'aripennis' with 144 'perticas': therefore in the solutions to many of the problems involving division of area, we find the repeated instruction 'divide in XII partes'.¹⁷² Similarly, since twelve *denarii* made one *solidus*, divisions of money were more convenient when treated in terms of twelfths. Thus *Propositio 35* runs as follows:

¹⁷⁰ Alcuin (ascr.), 'Propositiones ad acuendos iuvenes', p. 75.

¹⁷¹ Alcuin (ascr.), 'Propositiones ad acuendos iuvenes', p. 72. The problem is complicated by the fact that different ranks of clergy receive different amounts of bread.

¹⁷² For example, *Propositiones 22-25*. See Alcuin (ascr.), 'Propositiones ad acuendos iuvenes', pp. 57-59; and Hadley and Singmaster, 'Problems', pp. 113-15.

Quidam paterfamilias moriens reliquit infantes et in facultate sua solidos DCCCCLX et uxorem praegnantem. Qui iussit, ut, si ei masculus nasceretur, acciperet de omni massa dodrantem, hoc est, uncias VIII, et mater ipsius acciperet quadrantem, hoc est, uncias III. Si autem filia nasceretur, acciperet septuncem, hoc est, VII uncias, et mater ipsius acciperet quincuncem, hoc est, V uncias. Contigit autem, ut geminos parturiret, id est, puerum et puellam. Solvat, qui potest, quantum accepit mater vel quantum filius quantumve filia.

(A dying man left 960 shillings and a pregnant wife. He directed that if a boy was born he should receive $9/12$ of the estate and the mother should receive $3/12$. If however a daughter was born, she would receive $7/12$ of the estate and the mother should receive $5/12$. It happened however that twins were born - a boy and a girl. How much should the mother receive, how much the son, how much the daughter?)¹⁷³

Thus division into twelfths is something of a *cliché* in the *Propositiones*, and if it was Chaucer's intention to produce, in Friar John's speech quoted above, a parody of standard arithmetical exercises, then his decision to invoke a division into twelve rather than thirteen parts is easily understood.

Furthermore, it is noticeable that in many of the more difficult division problems of the collection, an apparently straightforward sum was complicated by the condition that greater shares be awarded to different people, depending on their rank or status. In *Propositio* 47 the bishop's steward is instructed to assign two loaves to each priest, half a loaf to each deacon, and a quarter to each reader, transforming the simple division of twelve by twelve into a more devious problem of how many of each type of clergy there are. In the same way, Chaucer's steward solves the 'impossible' by allowing a greater share of the fart to the lord's 'noble confessor' himself (2265), thus simultaneously solving the problem of how a twelve-spoked cartwheel can serve to divide the fart thirteen ways.

It is also worth noting that the Friar's expected examples are highly conventional in terms of *what* is to be divided. *Propositiones* 32-34 concern a *paterfamilias* dividing

¹⁷³ Alcuin (ascr.), 'Propositiones ad acuendos iuvenes', p. 65; translation taken from Hadley and Singmaster, 'Problems', p. 118.

measures of grain amongst his household, just as Friar John asks for ‘half a quarter otes’.¹⁷⁴ *Propositio* 35, quoted above, is just one of a number of division exercises in the collection which involve money, paralleled in the Friar’s request for ‘foure and twenty grotes’. It is even possible, in the case of *Propositio* 35, that the man on his death-bed may be reflected in the sickly Thomas of Chaucer’s narrative. Earlier in the tale, the Friar has gone from house to house asking for, amongst other things, a portion of cloth, ‘a dagon of youre blanket’ (1751): two of the problems in the *Propositiones* concern the division of a large cloak and a piece of linen (*Propositiones* 9 and 10 respectively).¹⁷⁵ Another problem in the collection (*Propositio* 49) involves calculating the number of carts that can be fitted out from forty-nine cartwheels, the answer, of course, being that twelve carts can be created with one cartwheel left over.¹⁷⁶ Even the steward’s form of words in replying to the lord’s ‘Tel me how’ (2230) with ‘I koude telle’ (2247) is possibly a reflection of the standard challenge of the *Propositiones* to the would-be problem-solver: ‘dicat qui potest’ or ‘dicat qui valet’ (‘let him tell who can’).

The *Propositiones* also contain three problems that ‘appear to be spoof questions’.¹⁷⁷ These questions are disguised to look exactly like the genuine mathematical problems that surround them. *Propositio* 15 is a perfectly straightforward arithmetical puzzle which asks, ‘quot rigas factas habeat homo in agro suo, quando de utroque capite campi tres versuras factas habuerit’ (‘How many furrows has a man made in a field, when he has made three turnings at each end of the field?’).¹⁷⁸ The problem immediately preceding appears very

¹⁷⁴ See Alcuin (ascr.), ‘Propositiones ad acuendos iuvenes’, pp. 63-65; and Hadley and Singmaster, ‘Problems’, pp. 117-18.

¹⁷⁵ See Alcuin (ascr.), ‘Propositiones ad acuendos iuvenes’, pp. 49-50; and Hadley and Singmaster, ‘Problems’, p. 108.

¹⁷⁶ See Alcuin (ascr.), ‘Propositiones ad acuendos iuvenes’, p. 73; and Hadley and Singmaster, ‘Problems’, p. 123. It is worth acknowledging, in relation to the Summoner’s Tale, that O’Brien argues for the cart as a conventional metaphor for science and scientific concerns in the later Middle Ages: ‘Ars-Metrik’, p. 9; and that Robert Hasenfratz has argued for an association with diagrams of the wheel of the twelve winds in medieval ‘scientific’ texts: see ‘The Science of Flatulence’.

¹⁷⁷ Folkerts, ‘The *Propositiones ad acuendos iuvenes* Ascribed to Alcuin’, in *Essays on Early Medieval Mathematics*, Chapter 4, p. 7.

¹⁷⁸ Alcuin (ascr.), ‘Propositiones ad acuendos iuvenes’, p. 53; translation from Hadley and Singmaster, ‘Problems’, p. 110.

similar at first glance, asking, ‘Bos qui tota die arat, quot vestigia faciat in ultima riga?’ (‘An ox ploughs a field all day. How many footprints does he leave in the last furrow?’). However, the solution reveals a trick:

Nullum omnino vestigium bos in ultima riga facit, eo quod ipse praecedit aratrum et hunc aratrum sequitur. Quotquot enim hic praecedendo inexculta terra vestigia figit, tot illud subsequens excolendo resolvit. Propterea illius omnino nullum reperitur in ultima riga vestigium.

(An ox leaves no trace in the last furrow, because he precedes the plough. However many footprints he makes in the earth as he goes forward, the cultivating plough destroys them as it follows. Thus no footprint is revealed in the last furrow.)¹⁷⁹

The other two trick questions involve impossible divisions. One, *Propositio* 6, concerns two traders who manage to make a profit by selling pigs at the same price as that at which they bought them: here the solution is part of the joke, using as it does an erroneous division to explain the impossible situation.¹⁸⁰ The final ‘spoof’ question, *Propositio* 43, runs as follows:

Homo quidam habuit CCC porcos et iussit, ut tot porci numero impari in III dies occidi deberent. Similis est et de XXX sententia. Dicat modo, qui potest, quot porci impares sive de CCC sive de XXX in tres dies occidendi sunt. [Haec ratio indissolubilis ad increpandum composita est.]

(A certain man had 300 pigs and commanded that the pigs be killed in 3 days, an odd number each day. (There is a similar one about 30 pigs). Say, who can, what odd number of pigs, either of 300 or of 30,

¹⁷⁹ Alcuin (ascr.), ‘Propositiones ad acuendos iuvenes’, pp. 52-53; translation from Hadley and Singmaster, ‘Problems’, p. 110.

¹⁸⁰ See Alcuin (ascr.), ‘Propositiones ad acuendos iuvenes’, pp. 47-48; and Hadley and Singmaster, ‘Problems’, pp. 106-107. The problem concerns two traders who buy 250 pigs for 100 shillings. They then divide them up between them, one taking the better and one the poorer pigs. The one trader sells 120 of his better pigs at two for a shilling, making 60 shillings. The other trader sells 120 of his poorer pigs at 3 for a shilling, making 40 shillings. Thus by selling pigs at a rate of 5 for two shillings (which was supposedly the rate at which they bought them), they have made their 100 shillings back, and somehow still have 10 pigs to sell off for a profit. The trick is that if they actually bought the pigs at this rate in the first place, then they would have 40% better quality and 60% poorer quality pigs, not 50-50. As Hadley and Singmaster point out, the riddle became immensely popular and still lives on in several versions.

must be killed in each of the three days? This unsolvable division was composed merely for fun.)¹⁸¹

The ‘solution’ dismisses the problem with, ‘Ecce fabula! quae a nemini solui potest [...] Haec fabula est tantum ad pueros increpandos’ (‘Behold a fable which is able to be solved by no one. This fable is largely for the amusement of children’); and clearly a mathematical solution is impossible. However, Hadley and Singmaster mention modern examples of the problem that ‘solve’ as ‘1, 1, 298, since 298 is a very odd number of pigs to kill in one day’.¹⁸² This ‘solution’ works on a pun that is language dependent, of course; but it is possible that there was some similarly absurd resolution of the problem that the compiler of the *Propositiones* did not bother to detail. Either way it is clear that humorous and impossible division exercises also formed part of the ‘arithmetical’ heritage of the Middle Ages, especially since, as both the title of this collection and the ‘solution’ to this puzzle implies, such problems were intended for the instruction and amusement of children. Thus Chaucer’s own ‘impossible’ division problem finds in ‘ars-metrike’ proper precedents even more direct than in the complex philosophical musings of the fourteenth century that Glending Olson has explored.¹⁸³

On the subject of the *Propositiones*, one final point is perhaps worth mentioning. Chaucer’s rather surprising decision to locate the Summoner’s Tale in a very specific part of Yorkshire has never received a fully satisfactory explanation.¹⁸⁴ It may of course be purely coincidental, but supposing that Chaucer knew the *Propositiones* as the ‘arismetrica’ of

¹⁸¹ Alcuin (ascr.), ‘Propositiones ad acuendos iuvenes’, p. 70; see also Hadley and Singmaster, ‘Problems’, pp. 121-22.

¹⁸² Hadley and Singmaster, ‘Problems’, p. 122.

¹⁸³ Richard Firth Green’s speculation, on the basis of a late fifteenth-century French riddle about dividing a fart in twelve, that there may have been an earlier riddle upon which Chaucer’s narrative draws, is intriguing but ultimately incapable of proof. See ‘A Possible Source for Chaucer’s “Summoner’s Tale”’. However, it is possible that there was a degree of interaction between arithmetical puzzles of the sort found in the *Propositiones* and popular literary forms in France: for instance, the division of the cloth in *Propositiones* 9 and 10 and the fabliau, ‘La Housse Partie’. For a concise summary of the story in its various versions, see Brook, ‘The Moral of “La Housse Partie”’, pp. 396-97. See also *Nouveau Recueil complet des Fabliaux*, ed. by Nooman and Boogaard, III, pp. 175-209.

¹⁸⁴ As *The Riverside Chaucer* (p. 877) notes, John Fleming easily refuted John Manly’s explanation that a local ecclesiastical jurisdictional dispute was the reason for Chaucer’s choice of setting. See Fleming, ‘Antifraternalism’, pp. 688-89; and Manly, *Some New Light*, pp. 102-22.

Alcuin of York, his decision to locate the tale where he does makes perfect sense. For we know from Alcuin's *Life of St. Willibrord* that he himself inherited the ownership and government of a monastery or at least a 'small maritime cell' at Spurn Point, in 'the mersshy contree called Holdernesse' (1710), as Chaucer describes it.¹⁸⁵ It is perhaps not implausible that Chaucer decided to set an Alcuinesque division problem on Alcuin's home turf: a monastery in Holdernesse.

The Summoner's Tale and Insolubles

However, the earlier (or simpler) arithmetical sources of the Summoner's 'probleme' are only half the story. As the tale itself suggests, the more basic problems of 'ars-metrike' were repeatedly discussed, complicated and evolved over several centuries, and by the end of the Middle Ages it had become clear that originally straightforward mathematical puzzles could be linked with more sophistical questions of language, reference and meaning. For instance, according to Hadley and Singmaster the 'testament' type problem exemplified by *Propositio 35* was very popular throughout the Middle Ages and even into the sixteenth century. However, in attempting to solve the problem, 'there is considerable room for debate and [by the end of the Middle Ages] several authors give up and declare that the will must be void': rather like the response of the lord in the Summoner's Tale (2240-42).¹⁸⁶ The dismissal of such agreements is in itself reminiscent of some fourteenth-century logical responses to similar problems.

One sophism that was widespread during the fourteenth century was the river-crossing insoluble mentioned briefly in the Introduction:

Pono casum quod Plato custodiat pontem cum forti adiutorio, ita quod nullus potest transire sine eius licentia. Et tunc venit Sortes rogans Platonem cum magna prece quod permittat eum transire. Tunc Plato

¹⁸⁵ Browne, *Alcuin*, pp. 4-5. See also Alliott, *Alcuin of York*, p. 1.

¹⁸⁶ Hadley and Singmaster, 'Problems', p. 119. See also Smith, *History of Mathematics*, II, pp. 544-46.

iratus vovet et iurat dicens, ‘Certe Sortes si in prima propositione quam tu proferes dicas verum, ego permittam te transire; sed certe si dicas falsum, ego proiciam te in aquam.’ Tunc Sortes dicit Platoni praedictum sophisma, scilicet ‘Tu proicies me in aquam’. Queritur ergo tunc quid debeat facere Plato secundum promissum.¹⁸⁷

(I posit the case that Plato guards a bridge with much assistance, so that none can cross without his assent. And then Socrates comes asking Plato with great supplication that he allow him to cross. Then Plato angrily vows and swears, saying ‘Surely, Socrates, if in the first proposition which you utter, you speak the truth, I will permit you to cross. But surely, if you speak falsely, I shall throw you in the water.’ Then Socrates will say to Plato the aforesaid sophism, namely, ‘You will throw me in the water.’ Thus, it is asked then what Plato ought to do, according to his promise.)¹⁸⁸

At first, it seems a straightforward agreement; but Socrates’ devious reply generates a seemingly inescapable semantic paradox. If Plato throws Socrates in the river then Socrates’ statement was true, and Plato ought to have let him cross. If Plato lets Socrates cross, then Socrates’ statement was false, and Plato ought to have thrown him in the river. Part of the solution that Buridan gives to the bridge problem is that Plato lied when he made his initial ultimatum, and so the agreement was void.¹⁸⁹

This paradox is often referred to as ‘Buridan’s Bridge’, since it appears in Chapter 8 of his *Sophismata*; but it was already well known in England at around the same time. Bradwardine, for instance, considers exactly the same sophism in his *Insolubilia*.¹⁹⁰ Holcot also discusses the bridge problem, in his *Determinationes*. He refers to it as a ‘sophisma commune’.¹⁹¹ He also presents the same basic problem in two other forms, the second of

¹⁸⁷ Buridan, *Sophismata*, pp. 156-57 (Chapter 8, Sophism 17). ‘Sortes’ is the standard medieval Latin spelling of ‘Socrates’.

¹⁸⁸ Buridan, *Sophisms*, p. 219.

¹⁸⁹ Buridan, *Sophisms*, p. 220. Buridan actually addresses three questions concerning the sophism. See Jacqueline, ‘Buridan’s Bridge’, for a summary and critique of his answers. The three questions are ‘first, whether the proposition which Socrates utters, “You will throw me in the water”, is true; second, whether Plato’s conditional oath or promise is true or false; and third, what Plato ought to do in keeping his vow’; and Jacqueline comments that, from the perspective of modern logic, Buridan’s solution is ‘disappointing’ (p. 457) and ‘frustrating’ (p. 462) because of his insistence that Plato simply ought not to have made his promise in the first place.

¹⁹⁰ Bradwardine, *Insolubilia*, pp. 134-35.

¹⁹¹ Holcot, *Determinationes*, sign. D – K vi (sign E^{va}; sign. E iii^{rb}); this volume also contains a treatise *De imputabilitate peccati*, and another ‘questio’, neither by Holcot, although the first is ascribed to him (see Gelber, ‘Robert Holcot’, in *SEP*).

which he also describes as ‘commune’.¹⁹² These other versions of the problem are even more suggestive in relation to the Summoner’s Tale. In the scenario that Holcot gives immediately before the bridge problem, Socrates, Plato’s prelate, promises Plato a certain reward, A, if he obeys his rule, that Plato should only study about the truth; Plato then studies the proposition, ‘Socrates does not owe me Reward A’ (‘Sortes non tenetur platoni in a premio’).¹⁹³ Second, in the example that Holcot gives immediately after the bridge problem, it is proposed that everyone who speaks the truth will receive a denarius, and Socrates says, ‘I will not receive a denarius’ (‘ponatur quod omnis dicens verum habebit decem et dicat Sortes non habebit decem’).¹⁹⁴ Bradwardine discusses the same sophism, adding by means of explanation, that the exchange takes place ‘in aliqua distributione’ (‘in some share-out’).¹⁹⁵ The Summoner’s ‘impossible’ of a friar who is conditionally promised a reward *to be shared out* (with the expectation of that reward being a coin of some sort) thus uses a great deal of the ‘imagery’, and much of the basic structure, of these logical problems.

Such *sophismata* were by no means disconnected from the transactions and agreements that might give rise to them in everyday life. The bridge problem might seem contrived; but Buridan, for instance, also invokes the problems of commerce, devoting a lot

¹⁹² Holcot, ‘*Determinationes*’, sign. E iii^{va}.

¹⁹³ Holcot, ‘*Determinationes*’, sign. D^{ra}: ‘Vtrum aliquis in casu possit ex precepto obligari ad aliquid quod est contra conscientiam suam’ (‘whether anyone in any situation could be obliged by command to do anything that is against his conscience’). The question leads to further problems concerning infinity and the proportionality of merit, which I will discuss further in the Gawain section below. See also, Holcot, ‘*Determinationes*’, sign. E iii^{ra-b}.

¹⁹⁴ Holcot, ‘*Determinationes*’, sign. E iii^{va}. According to Ashworth (‘Will Socrates Cross the Bridge?’, pp. 75-76), the bridge or denarius sophism is used by at least eleven different logicians in the later Middle Ages, including five from the fourteenth-century (but note that Ashworth inaccurately ascribes the sophism to Holcot’s commentary on the *Sentences*, rather than the *Determinationes* bound in the same volume). Much of the popularity of this sophism in the fifteenth century is probably due to the fact that the influential Paul of Venice uses them in his *Logica parva* (written just after his return from his three year visit to Oxford) and his *Logica magna* (written three or four of years later: for dating, see Conti, ‘Paul of Venice’, in *SEP*). Paul of Venice was the main conduit for English logical work, including that of Ralph Strode, to be preserved and developed in Italy over the next two centuries. It seems likely therefore that he picked up this problem in England, where, judging from Holcot’s comments, it evidently enjoyed some celebrity. Peter of Mantua, another late fourteenth-century Italian follower of Strode (and Heytesbury) also uses the problem, according to Ashworth. For more on Peter of Mantua, see Boh, *Epistemic Logic*, pp. 101-115. Peter of Ailly also mentions the bridge problem in his *Insolubilia* (dated 1372 by Spade – see Spade and Read, ‘Insolubles’, in *SEP*). He may have known it from Buridan.

¹⁹⁵ Bradwardine, *Insolubilia*, pp. 124-25.

of time to discussing another sophism - the even more widespread but rather more likely sounding ‘I owe you a denarius’ (or ‘I owe you a horse’). Here he tackles the legal-sounding equivocation that since I do not owe you this particular horse, or that particular horse, and so on for all actual horses, then I do not owe you any horse at all. This is an especially thorny problem for a logician with Buridan’s nominalist emphasis on individuals rather than abstract universals.¹⁹⁶ Such problems explicitly to do with ‘legal obligation’ link fourteenth-century logical discussions of meaning and reference to commercial scenarios like those found in Alcuin’s *Propositiones* and, indeed, the Summoner’s Tale.¹⁹⁷ Discussions of similar *sophismata* are found in Ockham, Burley, Heytesbury and Wyclif.¹⁹⁸ Wyclif’s treatment of the question is especially interesting since he ultimately (and as Read observes, ‘quite unnecessarily’) introduces God’s omniscience into his solution to the problem of which of two pennies I promise you, if I promise you a penny. As Read explains, ‘God knows which particular penny my confused promise obliges me to give, “for it cannot be a matter of indifference for God”’.¹⁹⁹ I discuss the logical and literary effects of Wyclif’s views of God’s omniscience further below.

Holcot’s treatments of the bridge and denarius *sophismata* are set in the context of a discussion of divine ordinances, in relation to the question of whether everything lawful and not contrary to the salvation of the soul can be reasonably commanded by God (‘vtrum omne quod est licitum et non contra salutem anime possit precipi rationabiliter a deo’): that is, it is

¹⁹⁶ Buridan, *Sophisms*, pp. 137-43 (Chapter 4, Sophism 15). The example of problematic horse-trading may well itself have developed from earlier *arithmetical* problems. Ivor Grattan-Guinness gives an example of arithmetically-complicated horse-trading from Fibonacci: see *Rainbow of Mathematics*, pp. 141-42.

¹⁹⁷ Buridan, *Sophisms*, p. 137. The extent to which logico-mathematical developments emerged from quotidian commercial concerns has been explored in detail by Joel Kaye, *Economy and Nature*. I will discuss some of his research in relation to medieval proto-probability theory in the Gower section below.

¹⁹⁸ For Heytesbury’s discussion of the proposition, ‘promitto tibi denarium; ergo denarius tibi promittitur’, see Heytesbury, *Sophismata* (Sophism 4, p. 8, fols 89^{va}-90^{va} (fol. 90^{rb})). See also Ashworth, ‘I Promise You a Horse’; although her focus is later, Ashworth briefly but usefully discusses the differences between Buridan’s and Heytesbury’s solutions to this sophism. For discussions of Wyclif, Ockham and Burley’s treatments of such *sophismata*, see Read, “‘I promise a penny’”, pp. 335-43).

¹⁹⁹ Read, ‘I promise a penny’, p. 340. See Wyclif, *Tractatus de Logica*, II, p. 72.

linked to the controversy surrounding the divine *potentia absoluta*.²⁰⁰ He is particularly interested in the problem of those divine utterances whose truth-value might arguably be different before and after they are uttered. As Elizabeth Ashworth points out, in fourteenth-century *sophismata* ‘vows, promises and the like were treated as propositions with truth-values rather than as performative utterances with no truth-values’.²⁰¹ Hence vows, promises and agreements could be used to build strict *insolubilia* as well as simpler *sophismata* and *impossibilia*.²⁰² The prelate’s promise to reward obedience to his commands, or Plato’s promise to allow Socrates to cross the bridge only in certain conditions, and all similar statements, could therefore be treated as propositions and analysed for their truth or falsehood. The problem arises that the truth-value of the promise (as well as its ‘reasonableness’, to use Holcot’s term) appears to be contingent upon the future actions of the one to whom the promise is made. Buridan’s discussion of the bridge problem is also set in the context of the controversy over future contingency and the determinacy of the truth-value of propositions about the future. In fact, Buridan explicitly refers to Aristotle’s *De interpretatione* as an authority for his argument that Socrates’ statement is neither determinately true nor determinately false.²⁰³

It is thus possible to read Thomas’s ‘impossible’ in a similar way. He makes, and gains the Friar’s agreement to, a proposition about the future (you will divide whatever I give you). The truth-value of this is contingent upon Thomas’s own actions, and what he decides to give, rather than on the Friar’s faithfulness to his promise:

And in thyn hand thou shalt it have anon,
 On this condicion, and oother noon,
 That thou departe it so, my deere brother,
 That every frere have also mucche as oother. (2131-34)

²⁰⁰ Holcot, ‘*Determinationes*’, sign. D – K vi.

²⁰¹ Ashworth, ‘Will Socrates Cross the Bridge?’, p. 75.

²⁰² For definitions of these terms, see the Introduction.

²⁰³ Buridan, *Sophisms*, p. 220; Aristotle, *De Interpretatione*, 19a, trans. by Ackrill, pp. 30. For more on the bridge problem in relation to future contingency and related questions, see Øhrstrøm and Hasle, *Temporal Logic*, pp. 36-38. See also Ulatowski, ‘Conscientious Resolution’, pp. 92-93.

The logical precision of the agreement is worth noting here. For such paradoxes to work, the proposition must be *biconditional* (to use a modern term): that is, an ‘if-and-only-if’ statement. It recalls Holcot’s description of a scenario in which ‘[Sortes] faciat *talem* legem quod tenebitur quilibet implere preceptum suum in a premio, *et solum tali*’ (‘Socrates makes a law by which, and only by which, anyone who fulfils his command will be owed Reward A’).²⁰⁴ Chaucer’s ‘on this condicion and oother noon’ corresponds with the logician’s ‘talem [...] et solum tali’.

Holcot’s proposed solution to the bridge and other similar *sophismata* is to emphasise the *intention* of the one formulating the command or promise (‘ad mentem precipientis’ or ‘intentio precipientis’), as opposed to the exact form of words given (‘ad virtutem verborum’ or ‘formam verborum’).²⁰⁵ Thus although the form of words seems to force a paradox, Holcot concludes, somewhat surprisingly, that Socrates should not be allowed to cross the bridge, arguing that it is fallacious to infer from Socrates’ proposition, ‘I will not cross the bridge’, that he will cross the bridge, since a proposition can never follow formally from its opposite (‘numquid vnum oppositorum sequitur formaliter ex altero’); and this solution fulfils the intention of Plato in making the promise.²⁰⁶

Buridan, on the other hand, concludes that Plato himself lied. In other words, Plato’s ultimatum cannot actually dictate Socrates’ fate in all conceivable scenarios, but it tacitly assumes that it can: and so it is simply false.²⁰⁷ This solution is indicative of an evolving approach to the most famous type of insoluble, of which the river-crossing problem is an elaboration, the so-called ‘Liar paradox’. Earlier treatments of insolubles like the Liar paradox ‘maintained that one who utters an insoluble is simply “not saying anything”, in the

²⁰⁴ Holcot, ‘*Determinationes*’, sign. E iii^{rb}.

²⁰⁵ Holcot, ‘*Determinationes*’, sign. E iii^{ra-b}. For Buridan too, *intention* is essential to what he understands by a ‘proposition’, although he does not address this particular problem in the same way as Holcot. See Scott, ‘Introduction’, in Buridan, *Sophisms*, p. 51.

²⁰⁶ Holcot, ‘*Determinationes*’, sign. E iii^{va}.

²⁰⁷ Buridan, *Sophisms*, pp. 219-20.

sense that his words do not succeed in making a claim': a 'solution' known as '*cassatio* or cancelling'.²⁰⁸ It was Bradwardine, the logician so admired by Ralph Strode for his work on insolubles, and named by Chaucer in the Nun's Priest's Tale (see below), who pioneered a novel approach, as Paul Vincent Spade describes:

He appears to have been the first to hold that a proposition signifies exactly what followed from it. Since he was also committed to saying that *every* proposition implies its own truth [...], this means that the insoluble 'This proposition is false' signifies that it itself is true. Since it also signifies that it is false, it signifies a contradiction, and so is simply false. The paradox is broken.²⁰⁹

Bradwardine's ingenious solution was quickly taken up and developed by contemporary logicians, including Buridan.²¹⁰

Thomas's 'probleme' in the Summoner's Tale is strictly speaking not an insoluble (as Chaucer himself acknowledges by using the term 'impossible'); but all three solutions discussed above are proposed at the end of the tale. The Friar is unambiguously in favour of the Bradwardine-Buridan solution: he calls Thomas 'false' immediately (2153), and repeats his accusation in front of the lord (2213). For the Friar, Thomas lied, since the agreement he formulated constituted a false proposition about a contingent future. The lord's instinct, however, is to take the older approach to such insolubles and simply to dismiss the agreement as meaningless (2242) – even though his repetition and elaboration of the details of the agreement emphasise the problematic fact that the precise contract is perfectly clear (2225-2226). The steward, perhaps, comes closest to Holcot's solution of the problem. He

²⁰⁸ Spade, 'Late Medieval Logic', p. 416. Bradwardine considers a range of approaches to solving insolubles, including *cassatio* (*Insolubilia*, pp. 62-65), which he later refutes (pp. 88-91).

²⁰⁹ Spade, 'Late Medieval Logic', p. 417. Kathryn Lynch applies fourteenth-century approaches to the Liar paradox to a reading of the 'Legend of Good Women': Lynch, *Visions*, Chapter 5, pp. 111-39.

²¹⁰ Spade, 'Late Medieval Logic', p. 417. Buridan's solution is different in certain important respects. According to Scott, Buridan's theory of supposition prevents him from accepting that a proposition signifies *that* it is true, since signification can only be of an actual entity: in other words, to say that all propositions signify that they are true is to say that they signify themselves as true propositions, which is to say that all propositions actually *are* true propositions, which is unacceptable. Rather Buridan argues that propositions 'imply virtually another proposition asserting the truth of the first proposition'; that is signifying the first proposition being true. If the first proposition is not true, then no such proposition exists, so the second proposition is false. So the first proposition implies a second false proposition; and hence the first proposition must be false. See Scott, 'Introduction', in Buridan, *Sophisms*, pp. 55-56.

understands that the motivation behind Thomas's formulation of the agreement was a general dislike of friars, and a determination to be revenged upon this one in particular. Expressing himself as ironically as Thomas had done earlier, he details his own reasons for wishing Friar John to be repeatedly farted upon (2281-84). Since Thomas's intention was simply to abuse the friars as much as possible, the steward disregards the exact form of words of the agreement. He surmises that Thomas will be happy if the fart he has given is not returned but is repeated, and not even split equally, but with Friar John taking a greater share (2276-77). Such a solution, the steward tells us, is according to 'reasoun' (2277): that is, it interprets the agreement 'reasonably' ('rationabiliter'), as Holcot suggests. Thus, the Summoner's discussion of the fart problem demonstrates the evolution of simpler arithmetical puzzles into much trickier, more sophistic problems of meaning and reference in propositions about the future. No wonder the lord exclaims that 'In ars-metrike shal ther no man fynde, / Biforn this day, of swich a question' (2222-23)!

Empty Utterances

Quite apart from the question of future contingency, the fart itself also poses problems to do with the meaning of utterances. Here again, a closer attention to the actual manifestations, and precise *terms* of fourteenth-century *sophismata* can help explicate Chaucer's writing. Before the fart is bestowed, Friar John regales his poor victim with the lively example of blasphemous gluttons: 'Lo, "buf!" they seye, "*cor meum eructavit!*"' (1934). The interjection, 'buf', is, of course, supposed to represent the glutton's belch, in humorous explanation and excusal of which he quotes the opening line of Psalm 44: '*cor meum eructavit verbum bonum*' ('My heart hath uttered a good word'). Such a simple glossing of the word, along with an understanding of the literal meaning of the Latin 'eructavit', is sufficient to explain the Friar's crude jest. As Thomas Ross rather primly comments, 'belches are never very

funny, but Chaucer does about as well as anyone'.²¹¹ However, as we might expect from Chaucer, the joke suggests a world of sophisticated humour and cross-reference that requires rather more contextual explanation. For one thing, Chaucer evidently liked this joke well enough to use it more than once in *The Canterbury Tales*. The exemplary drunkard apostrophised by the Pardoner makes a noise, 'as though thou seydest ay "Sampsoun, Sampsoun!"' (VI. 554). Once again we have a meaningless verbal utterance interpreted as a religious expression: bemused by the problem, the Pardoner can only remark that 'Sampsoun drank nevere no wyn' (VI. 555). In that case, the problem of a meaningless, or rather a deceitful religious utterance, stands synecdochally for the Pardoner's whole sermon.

Then is there, perhaps, a broader significance to the belch in the Summoner's Tale?

O'Brien puts us on the right track:

The pun occurs again at the end of the tale. Here the lord and his company celebrate the squire's solution to the friar's problem by saying: 'subtiltee / And heigh wit made [Thomas] speken as he spak; / He nys no fool, ne no demonyak' (2290-92). By this time 'spake' refers as much to the fart as to what Thomas tells the friar about dividing his gift. Speaking, farting and belching [...] are inseparable; they are all perturbations of the air, equally interesting as physical events to be measured and described.²¹²

Both O'Brien and Olson emphasise the measurement of physical phenomena. Yet the problem of meaningless verbal acts is a logical problem of even greater importance and controversy in the fourteenth century than the question of measurement, drawing as it does from the wider argument surrounding theories of supposition and the fourteenth-century revival of terminist logic. Chaucer's belch deserves a closer look.

In the Summoner's Tale, the interjection 'buf' is almost certainly not mere onomatopoeia, but is related to the Middle English verb 'buffen', meaning 'to speak with impediment, stutter, stammer' or alternatively 'to bark' like a dog. Of the former meaning, the MED gives three fourteenth-century examples, and of the latter, one fifteenth-century

²¹¹ Ross, *Chaucer's Bawdy*, p. 49.

²¹² O'Brien, 'Ars-Metrik', pp. 7-8.

citation.²¹³ The OED gives the definition of the verb as ‘to speak with obstructed and explosive utterance, to stutter’ or ‘to explode or burst into a laugh, or the like’. For the former sense, the earliest citation given is late thirteenth-century, but for the second sense the citation given is dated as 1611.²¹⁴ As the MED suggests, it is possible that the etymology of the word in the former sense is the Latin ‘balbutio’, since John Trevisa thus translates it in his Middle English version of Bartholomaeus’s *De proprietatibus rerum*. It is clear, therefore, that, however the word developed, its connotations were always those of impeded and involuntary speech. What is certain is that by the mid-fourteenth century, the interjection could be taken to represent meaningless verbal utterance, since this is exactly how Buridan repeatedly employs it in his *Sophismata*.

Discussing the argument that since no chimera exists, the term ‘chimera’ must therefore signify nothing, Buridan maintains that ‘the opposite is argued, since it would then be no more a significant word than “buff” or “baff,” which is not admitted’.²¹⁵ Later, Buridan considers how significant such interjections might be if they are designated as *proper nouns* or arbitrarily imbued with meaning, such as in the sophism ‘Baf will be baptised’. In fact, Buridan goes one step further and discusses whether ‘buf baf’ could be considered a true proposition, if ‘Baf’ is taken as the boy’s proper name and ‘buf’ is taken to stand for the phrase ‘this boy will be tomorrow [...]’ (thus ‘buf baf’, spoken the day before Baf’s christening, means ‘Tomorrow this boy will be called Baf’, and could thus be true).²¹⁶ Later we find Caxton using the phrase ‘He wyste not what to saye buff ne baff’ to mean ‘to know not what to say’, and John Knox reported as making a dismissive reply with the meaningless ‘buf, baf’, so it seems fairly clear that these interjections became relatively routine synonyms

²¹³ MED, ‘Buff’, v.1. 1a and 1b.

²¹⁴ OED, ‘buff’, v.1. 1.a, b.

²¹⁵ Buridan, *Sophisms*, p. 67 (Chapter 1, Sophism 4). There are several similar uses of the term in Buridan’s *Summulae de dialectica*: 1.1.4; 4.1.2; 4.3.2. For editions of these sections of the *Summulae* see, *Summulae de propositionibus*, p. 14 (*Summulae de dialectica*, trans. by Klima, p. 9); *Summulae de suppositionibus*, p. 223 and p. 255 (*Summulae de dialectica*, trans. by Klima, pp. 9-10 and p. 41).

²¹⁶ Buridan, *Sophisms*, pp. 161-62 (Chapter 6, Sophism 2).

for meaningless verbal utterance from the later Middle Ages onward.²¹⁷ Indeed the OED, following Paul Meyer, suggests the ultimate etymology of the later verb ‘baffle’ from the contemptuous interjection ‘baf!’²¹⁸ In their dismissive, even disrespectful meaningfulness, such interjections truly are baffling, especially to terminist logicians.

Yet Chaucer’s friar has the glutton equate his belch with the ‘verbum bonum’ implied in the citation of Psalm 44. The adjective ‘bonum’ was used in some fourteenth-century logical texts to mean ‘valid’, or even ‘true’.²¹⁹ The line seems to suggest a sophism of its own, very much like Buridan’s: ‘buf’ is a valid term or a true statement. That means, however, that ‘buf stands for something’. The relevance of this reading to the poem as a whole becomes clear when we take into account the dramatic irony of the line, noted by Trevor Whittock and Alan Levitan amongst others, by which the belch anticipates the later fart.²²⁰ For the ‘impossible’ problem that faces the Friar is not simply the abstract question of division of a continuum that Olson explores, but also the problem of how to treat as a concrete object something which, as the lord points out, is as diffused as ‘the soun or savour of a fart’ (2226).

Thomas originates this aspect of the problem by promising that ‘Bynethe my buttock there shaltow fynde / A *thyng*’ (2142-43: my emphasis). What sort of a ‘thyng’ is a fart? If, like a belch, a fart can be a ‘verbum bonum’, a valid term, then what can it ‘supposit’ or stand for? That Friar John expects something concrete as his ‘yifte’ (2146) he has already made clear: he wants something more than a ‘ferthyng’, which cannot easily be ‘parted in twelve’ (1967). Here again the proleptic irony of the pun (ferthyng / ferting) is not simply for the sake of toilet humour. Donald R. Howard, amongst others, notices the basic pun. He concludes

²¹⁷ OED, ‘buff’, n.5 and int. A.a.

²¹⁸ OED, ‘baffle’ v., etymology.

²¹⁹ Chaucer’s logician friend, Strode, himself regularly uses the adjective *bona* to designate that a *consequentia* is logically valid. See ‘*Tractatus de Consequentis*’. William Heytesbury, in his discussion of two-stage Liar paradoxes uses ‘bene’ and ‘male’ to mean ‘truly’ and ‘falsely’ when describing speech utterances. See *On ‘Insoluble’ Sentences*, p. 53.

²²⁰ See Whittock, *A Reading of the Canterbury Tales*, p. 138; and Levitan, ‘Parody of Pentecost’, p. 240.

that, since ‘puns are “the lowest form of humour”’, this one was primarily intended to demonstrate an ‘infantile or primitive response to [...] language’, in line with Chaucer’s presentation of ‘the Summoner at a level of pre-adolescent filth’. That conclusion seems somewhat naive in view of the fact that many of the most frequently debated of the *sophismata* turned, essentially, on what we might call ‘puns’.²²¹ Yet Chaucer’s pun is not merely that the word ‘ferthyng’ is similar to the word ‘fertyng’, but that the word ‘ferthyng’ itself can be ‘parted’ into a compound word: ‘fart-thing’. Going further and allowing for the etymological interchange that often took place between ‘f’ and ‘p’ in the evolution of the English language, Chaucer’s line carries another humorous pun in ‘parted’.²²² Without knowing it, or meaning it, Friar John really asks, ‘What is a fart-thing farted between twelve?’ Thomas, and later the steward, simply provide a physical enactment of Friar John’s unconscious ‘thought-experiment’.

The question of what makes ‘a thyng’ is related to the nature of its unity or division. As the Friar goes on to explain, ‘ech thyng that is oned in himselve / Is moore strong than whan it is toscattered’ (1968-69): division can be a destructive process. The relationship between the unity of an object and its status as an object of linguistic reference is important in fourteenth-century logic too. This was especially the case for nominalist terminists like Buridan, for whom a term can only properly ‘stand for’ (or ‘supposit’ for) a really existent individual (what a layman might call ‘a thyng’). One common example concerned the situation where Socrates and Plato are carrying a stone together. Neither is carrying the whole stone. Nor can the stone be ‘parted’ between them: it is one stone. Therefore, neither is

²²¹ Howard, *The Idea of the Canterbury Tales*, p. 257. See also Travis, *Disseminial Chaucer*, p. 228 and Green, ‘A Possible Source for Chaucer’s “Summoner’s Tale”’, pp. 24-27. Travis provides two useful, broader discussions of meaningless and meaningful sounds in Chaucer, focusing on socio-political connotations: his chapter in *Disseminial Chaucer*, on ‘The Noise of History as a Whole’, pp. 201-66; and his article ‘Thirteen Ways of Listening to a Fart’. My analysis of the Summoner’s Tale takes a rather different, but complementary, approach. Valerie Allen, whose book *On Farting* I read after this chapter was first written, also notices the pun, and usefully analyses its significance in terms of medieval etymology, grammar, rhetoric: see *On Farting*, pp. 141-46.

²²² On the etymology of ‘fart’ and the medieval slippage between ‘f’ and ‘p’, see Allen, *On Farting*, pp. 127-31 (although she does not seem to notice Chaucer’s pun in parted / farted).

carrying a stone. Perhaps coincidentally, Heytesbury's discussion of the problem also invokes the baptism of a boy, in which, not merely the head of the boy is baptised, nor each of his parts, but the boy as a whole.²²³ Buridan's 'Baf' baptism is introduced in the context of his discussion of the common sophismatic term 'chimera' and what it signifies, since, according to his theory of supposition, a term cannot signify something that does not exist. Elizabeth Ashworth notes that some other late-medieval logicians extended the 'I promise you a horse' sophism to discuss the meaning and validity of promises about non-existent things, of which the chimera was their instinctive example.²²⁴ The specific problem with the term 'chimera' lies in the fact that it is a composite of many different members of many different animals. Buridan ingeniously turns this to his advantage in his answer to the question of what the term 'chimera' signifies. It is true, he admits, that the term 'does not signify a chimera nor anything other than a chimera [...] but still it signifies many things that are not chimeras nor is any of them a chimera'.²²⁵ In fact, it refers to the simple concepts of 'animal, head, lion, body, goat, tail, serpent': the categorematic terms which are combined to form the complex concept for which the simple term 'chimera' may be substituted.²²⁶ Thus by finding a satisfactory means of 'parting' the chimera, Buridan manages to solve the sophism *and* maintain that terms like 'chimera' signify more than mere vacuous utterances, like 'buf'. Chimeras may be fictional, with no real existence, but that does not make the term meaningless.

Perhaps that is the reason for the shock that greets Thomas's 'impossible'. In its audacity of demanding for meaningless utterances a parity of treatment with concrete singulars, it seems to overthrow the subtle distinctions between fact, fiction (including the fiction of currency that Friar John was happy to entertain) and non-sense. Perhaps that is why

²²³ Heytesbury, *Sophismata* (Sophism 8, p. 6, fols 108^{ra}-114^{va} (fol. 108^{vb})).

²²⁴ Ashworth, 'I Promise You a Horse', pp. 65-66.

²²⁵ Buridan, *Sophisms*, p. 80 (Chapter 1, Solution to Sophism 4).

²²⁶ Scott, 'Introduction', in Buridan, *Sophisms*, p. 26.

it is hailed as the attack on intellectual order that we might expect of a ‘demonyak’ (2240). On the other hand, Kantik Ghosh has noted (in a rather different critical context) that in Wyclif’s *De benedicta incarnatione*, ‘Lucifer is identified as the first corrupt logician in that he asked the first *questio*, and thereby introduced into the fallen world the desire to dispute and win arguments’.²²⁷ Perhaps, then, Thomas is a ‘demonyak’ because he is possessed by almost diabolically advanced powers of sophismatic thought. Indeed, he may have to be demoniacal to compete with Friar John, since according to the Summoner himself, friars are the natural *intimates* of Lucifer.²²⁸

Either way, Thomas’s fart thus becomes, paradoxically, *inflated* with meaning: it is a challenge sent to both ecclesiastical and secular learning and authority. If they cannot divide his ‘yifte’, then so much for their scholarship. As Ghosh also points out, one medieval ‘line of thought [...] stressed that animals, children and the laity all have an innate ability to make effective use of the syllogism and form rational arguments’; and as Mishtooni Bose explained, according to such a model, even ‘*idiotae, rustici* [...] are naturally in possession of the tools that academics use’.²²⁹ One such ‘cherl’ (2153), Thomas, has gone one step further and beaten the logicians at their own academic games. On the other hand, if the representatives of ecclesiastical and secular learning and authority do find a solution to Thomas’s problem by blurring the distinctions between concrete singulars, signifiers and meaningless utterances, then the whole system of fourteenth-century terminist logic is undermined.

As Peter W. Travis writes,

part of the fart-and-cartwheel’s satiric thrust is obviously directed against *any* form of elevated discourse. The ‘demonstratioun’ of the

²²⁷ Ghosh, ‘Logic and Lollardy’, p. 252. See Wyclif, *De benedicta incarnatione*, p. 116. Wyclif intends by ‘questio’ more than its common meaning, of course: he is explicitly discussing the introduction of the ‘modum disputandi sophisticum’ into theological discourse, the true aim of which discourse should be the destruction of the pride of the sophistatists (‘sophistarum superbia destruenda’). In this, Thomas undoubtedly succeeds!

²²⁸ See the Summoner’s Prologue, 1689-98.

²²⁹ See Ghosh, ‘Logic and Lollardy’, p. 257, who cites Bose, ‘Vernacular Philosophy’, pp. 89-92.

solution to this ‘probleme’ in posterior analytics is clearly a send-up of scholastic choplogic, of all manner of ‘arsmetrike[s],’ and of liberal-arts learning in general. The lord’s squire is a ‘kervere’ who [...] believes it is possible to cut reality at the joints [...]. English peasants, however, would typically have responded by using less abstract, but equally expressive, language.²³⁰

The lord’s squire tries to ‘carve up’ the fart as Buridan carved up the chimera; but both fart and belch remind us that there remains to the logical anarchist a weapon even more problematic than fictive utterances: that is, meaningless ones, which yet somehow are pregnant with meaning if they are adopted as tokens. Just as Buridan’s ‘Baf’ could be someone’s name, so Chaucer’s ‘buf’ and Chaucer’s fart may be read as the tokens of the uneducated who pass judgment, as they pass other things, on the subtle distinctions and divisions of the logicians. A much later logician, Lewis Carroll, famously has his Alice rebuked for thinking that to mean what one says is the same as to say what one means.²³¹ In Chaucer too, scholars may take great care to say what they mean; but the uneducated still have the power *to mean what they say*.

²³⁰ Travis, *Disseminal Chaucer*, p. 227.

²³¹ Carroll, *Annotated Alice*, pp. 73-74 (Chapter 7 of *Alice in Wonderland*).

The Nun's Priest's Tale

The Bradwardine Connection

Chaucer's interest in logic has been illustrated by his use of the technical term 'sophyme' to describe the problem of the Summoner's Tale. In the Nun's Priest's Tale, the exact nature of his interest is even more specifically ascertainable, since he refers by name to arguably the most influential of the fourteenth-century logicians who produced *sophismata*: 'the Bisshop Bradwardyn' (3242), whose solution to the Liar paradox I discussed above. While in the Summoner's Tale the relation of the central problem to the controversy over necessity and future contingency was merely implied, in this case the context of the reference is explicitly the philosophical and theological debate about 'determinism'.

The relevance to the Nun's Priest's Tale of Bradwardine's discussion of foreknowledge and contingency, along with those of Boethius and Augustine, has already been examined to some extent by Anne Payne. Payne argues that the Nun's Priest summarises the theories of each of the three great thinkers he mentions; and her analysis is sufficient to demonstrate that Chaucer is not merely 'namedropping' in this passage. He is at least acquainted with the philosophical positions of these men: 'In spite of the Nun's Priest's disclaimer[,] "I ne kan nat bulte it to the bren" [3240], he satirizes the three theories in the tale with every mark of accurate understanding'.²³²

Wheither that Goddes worthy forwityng
Streyneth me nedely for to doon a thyng –
'Nedely' clepe I symple necessitee –
Or elles, if free choys be graunted me
To do that same thyng, or do it nocht,
Though God forwoot it er that I was wrought;
Or if his wityng streyneth me never a deel
But by necessitee condicioneel.
I wol nat han to do of swich mateere;
My tale is of a cok, as ye may here[.] (3243-3252)

²³² Payne, 'Foreknowledge and Free Will', p. 204.

As Payne explains, the opinion of Bradwardine can be found in the first three lines, that of Augustine in the next three lines, and that of Boethius in the following two lines of this passage.²³³

However, in line with her wider reading of ‘Menippean Satire’, Payne fits this passage into the conventions of that genre, including ridicule of the *philosophus gloriosus*.²³⁴ For Payne, then, the Nun’s Priest’s summary of the three philosophical positions becomes ‘wildly derisive’: ‘the narrator is overjoyed to point out the idiocies and inadequacies of his cited authors, especially Boethius’.²³⁵ She then focuses on the ‘absurd’ propositions of medieval logic (giving an example from Boethius), which attracted the narrator’s satirical interest in undermining ‘the decorum of logic’s world’.²³⁶ The reason she offers for this ridicule of logical philosophy is that ‘the logical proposition [...] is a colourless description of an aspect of an event in human life’.²³⁷

An analysis that pays more attention to the quasi-literary manifestations of late-medieval logic allows a rather different understanding of the influence and function of logical philosophy in the Nun’s Priest’s Tale. Rather than the beast fable being seen as violently undermining or ridiculing logical formulations, a contextually sensitive reading of the tale must first acknowledge that the world of medieval logic was never intended to be especially *decorous*. Scholastic treatises on the *sophismata* regularly discuss propositions that might appear to the modern reader more suited to the narrative of a fable or fabliau than a textbook of philosophy: propositions such as Buridan’s ‘A risible ass is running’ or ‘The ass flies, so

²³³ Payne, ‘Foreknowledge’, pp. 202-203.

²³⁴ Payne, *Menippean Satire*, p. 6.

²³⁵ Payne, *Menippean Satire*, p. 14.

²³⁶ Payne, ‘Foreknowledge’, pp. 207-208.

²³⁷ Payne, ‘Foreknowledge’, p. 214. Payne’s comment gives ammunition to Lynch’s criticism that ‘critics of the fourteenth-century English poet seem put off by a specter of scholasticism as a dusty, dessicated, overly analytic and unnecessary systematizing of knowledge pursued by bloodless clerks who spent their days debating the number of angels who could fit on the heads of pins’: *Visions*, p. 6.

the ass has wings’ or ‘This dog is your father’.²³⁸ Animals in the *sophismata* can talk, and laugh, and take the place of human beings, just as they do in fables (for example, Heytesbury’s ‘Brunellus [the ass] is able to be a man’).²³⁹ The logical delight in irreverent absurdity extends at times almost to blasphemy: Buridan even considers the proposition, ‘God is an ass’.²⁴⁰ Thus the hilarious tension between the Nun’s Priest’s summary of logical philosophy and his ‘tale [...] of a cok’ (3252) results from an uncomfortable *conjunction* rather than the derisive *disjunction* of ideas and images that has been suggested in the past.

Late-medieval logic is anything but ‘colourless’, and is in fact painted in very similar colours to the fable genre itself. Take, for example, the *Speculum stultorum*, the satirical fable explicitly referred to by Russell the Fox as the story of ‘Daun Burnel the Asse’ (3312). Jan Ziolkowski comments on the significance of Nigel de Longchamps’ ‘logical fun and games’ in this text:

What are we to make of Nigel’s decision to name the donkey dunce of his poem after the Burnel of philosophical jargon? In the first place, we can be sure that he expected his readers to know enough of the schools to be instantly cognizant of the allusion. [...]The use of formal logic [...] in satires such as *Speculum stultorum* was playful but far from casual. Rather, it was essential to the very construction of the actions and conception of the chief characters within these poems. As the study of formal logic became ever more firmly institutionalized in higher education, and as more and more authors opted for the vernacular over Latin, the humorous use of logic spread from such mainly clerical forms of expression as the Latin *comoedia* and narrative satires into vernacular literatures.²⁴¹

In referring to the *Speculum*, therefore, Chaucer is implicitly endorsing the mapping of logical structures onto the ‘construction’ of his own fable.

The importance to the tale of the controversy over predestination and necessity, and especially the importance of Bradwardine’s contribution to that debate, is further

²³⁸ Buridan, *Sophisms*, p. 75 (Chapter 1, Conclusion 8), p. 180 (Chapter 8, Discussion of Sophism 1) and p. 121 (Chapter 4, Sophism 7).

²³⁹ Heytesbury, *Sophismata* (Sophism 1, p. 12, fols 77^{va}-81^{ra} (fol. 79^{ra})).

²⁴⁰ Buridan, *Sophisms*, p. 196 (Chapter 8, Discussion of Sophism 7).

²⁴¹ Ziolkowski, ‘Humour of Logic’, pp. 25-26.

demonstrated by its ambiguous and much-discussed ending.²⁴² The Nun's Priest concludes the tale by exhorting his audience to pay attention to the fable's 'moralite' (without telling us what precisely the moral is). Significantly, he chooses the image of wheat-sifting for this interpretative process: 'Taketh the fruyt, and lat the chaf be stille' (3443). He goes on to justify his moralising with a mischievous quotation from St Paul's Epistle to the Romans (3438-42), before closing with a benediction:

Now, goode God, if that it be thy wille,
As seith my lord, so make us alle goode men,
And brynge us to his heighe blisse! Amen. (3444-46)

This simple prayer, with its vague reference to 'my lord', has provoked a number of differing readings over the last century and a half, the latest being almost a decade ago, when Peter Field published an analysis which attempted to resolve the ambiguity by interpreting the phrase as an elliptical reference to Jesus Christ.²⁴³ I would like to suggest an explanation of these lines that is both more efficient in its handling of the evidence and potentially more fertile as a key to the interpretation of the tale as a whole.

Any critical interpretation of these lines is complicated by the glosses found in Ellesmere and Hengwrt, which identify the 'lord' in question as 'dominus Archiepiscopus Cantuariensis';²⁴⁴ Dd.4.24 has a gloss that reads simply 'Kantuar'.²⁴⁵ At face value, this interpretation seems a very reasonable deduction from the fact that 'my lord' was a highly

²⁴² I present the following interpretation of the ending of the Nun's Priest's Tale in slightly abridged form in 'A Bradwardinian Benediction: The Ending of the Nun's Priest's Tale Revisited', *Medium Ævum* (forthcoming, 2013).

²⁴³ See Field, 'Ending of Chaucer's Nun's Priest's Tale'.

²⁴⁴ The Ellesmere gloss adds 's.' (i.e. 'scilicet') to introduce the attribution. See Chaucer, *The Canterbury Tales: The new Ellesmere Chaucer Monochromatic Facsimile*, fol. 185^v; and *The Canterbury Tales: a facsimile and transcription of the Hengwrt manuscript*, p. 423. Jill Mann gives the Ellesmere and Hengwrt glosses, but can provide no explanation for them. She emends 'his' to 'thy' 'in order to achieve surface coherence': Chaucer, *The Canterbury Tales*, ed. by Mann, p. 1054.

²⁴⁵ Alfred Pollard gives the gloss from 'the Cambridge MS.', as he calls Dd.4.24: *The Nun's Priest's Tale*, p. 46. See also Cooper, *Canterbury Tales*, p. 340, who mentions all three glosses as identifying the Archbishop of Canterbury, but gives no further details.

conventional form of address to a bishop, and indeed a number of modern editions do simply gloss ‘my lord’ as ‘bishop’.²⁴⁶

Yet to which bishop could Chaucer be referring? Skeat noted the Ellesmere gloss, adding merely that it ‘doubtless’ refers to ‘William Courtenay, archbishop from 1381 to 1396’.²⁴⁷ Alfred Pollard agreed that ‘the reference must [...] be to William Courtenay’ and speculated that ‘the Archbishop was in the habit of qualifying with the words, “if that it be thy wille,” the prayer, “make us all good men,” for which no such qualification is usually thought needed’.²⁴⁸ Kenneth Sisam doubted that the marginal gloss bears Chaucer’s authority, since, unsurprisingly, he found such guesswork about Courtenay’s mannerisms unconvincing, nor could he find any liturgical basis for the prayer. He concluded that ‘if the marginal note is right, we do not know why the archbishop is referred to’.²⁴⁹ In fact, as *The Riverside Chaucer* notes, there has been ‘a considerable, but so far unsuccessful, search [...] to find a similar benediction associated with [...] William Courtenay’.²⁵⁰ For example, Robert Pratt cited a sixteenth-century episcopal benediction, ‘May almighty God have mercy on you and forgive you all your sins, deliver you from all evil, and preserve and confirm you in good, and bring you to life eternal’; but this hardly provides evidence that late fourteenth-century bishops may have used anything like the Nun’s Priest’s blessing, which is, anyway, substantially different in form and content.²⁵¹

A number of critics concurred with Sisam in doubting the usefulness of the glosses. Manly pointed out that since ‘the parish of Bromley [where the Prioress and hence the Nun’s Priest were posted] was in the diocese of London and the archdeaconry of Middlesex, [...] the

²⁴⁶ For instance Chaucer, *The Canterbury Tales: Nine Tales and the General Prologue*, ed. by Kolve and Olson, p. 231: ‘my bishop’; Chaucer, *The Tales of Canterbury*, ed. by Pratt, p. 252: Pratt’s gloss is simply ‘bishop’, although he does add a brief footnote, which I discuss below.

²⁴⁷ Chaucer, *The Complete Works*, ed. by Walter W. Skeat, v, p. 258.

²⁴⁸ *The Nun’s Priest’s Tale*, ed. by Pollard, p. 46.

²⁴⁹ *The Nun’s Priest’s Tale*, ed. by Sisam, pp. 57-59.

²⁵⁰ *The Riverside Chaucer*, p. 941.

²⁵¹ Pratt also gives the Latin form of the *Benedictional* of John Longlonde, Bishop of Lincoln (1521): ‘Miseriatur vestri omnipotens deus, et dimittat vobis omnia peccata vestra, liberet vos ab omni malo, conservet et confirmet in bono, et ad vitam perducatur eternam’. Chaucer, *The Tales of Canterbury*, ed. by Pratt, p. 252.

Priest's lord was the bishop of London, who at that time was Robert Braybroke'.²⁵² Unfortunately he has no evidence to explain why Chaucer should wish to cite Braybroke at this point in the tale, and as Peter Field notes, 'no amount of scholarly searching has shown that those sentiments were distinctively associated with [...] *any* [...] late fourteenth-century bishop'.²⁵³ R. F. Patterson suggested that 'my lord' was Christ himself, and that 'thy wille' echoes 'Thy will be done' from the Lord's Prayer; the latter point being a suggestion which, as I will show, carries a certain amount of weight.²⁵⁴ G. H. Cowling made a similar argument, offering John vi.38-39 as an alternative source.²⁵⁵ Field follows Patterson, and augments his analysis with a quotation from Psalm 109, interpreted by Tertullian, which demonstrates the possibility, however distant, that Christ could be referred to as 'my lord', thus partially refuting Sisam's assertion that 'since Chaucer always uses oure Lord [for] "Jesus", my lord should refer to a lord in this world'.²⁵⁶ Anne Payne goes to the other extreme, and argues that 'the voice of the goodly priest, Sir John, is the voice of the devil', and that therefore 'my lord' is 'the devil's address to his master, Satan'.²⁵⁷ Robert Correale suggests that the benediction is based on I Thessalonians iv.3, since St Paul is the authority cited by the Nun's Priest immediately before his benediction; to which Field adds I Timothy ii.4.²⁵⁸ Correale also provides a passage from a fifteenth-century homily for the Feast of the Conversion of St. Paul, which bears striking similarities to the Nun's Priest's words, but is obviously too late to

²⁵² Manly, *Some New Light*, p. 225.

²⁵³ Field, 'Ending of Chaucer's Nun's Priest's Tale', p. 303 (my emphasis).

²⁵⁴ Patterson's opinion is summarised in Chaucer, *A Variorum Edition of the Works*, ed. by Pearsall, pp. 257-58, which provides a detailed summary of critical opinion on this point; and in Field, 'Ending of Chaucer's Nun's Priest's tale', p. 306 (note).

²⁵⁵ Chaucer, *The Prologue and Three Tales*, p. 123. John vi.38-39: 'Because I came down from heaven, not to do my own will, but the will of him that sent me. Now this is the will of the Father who sent me: that of all that he hath given me, I should lose nothing; but should raise it up again in the last day.'

²⁵⁶ Field, 'Ending of Chaucer's Nun's Priest's Tale', p. 303.

²⁵⁷ Payne, *Menippean Satire*, pp. 203-205.

²⁵⁸ Correale, 'Nun's Priest's Tale, 3444-46'. Field, 'Ending of Chaucer's Nun's Priest's Tale', p. 303. I Thessalonians iv.3: 'For this is the will of God, your sanctification'; I Timothy ii.4: '[God] will have all men to be saved and to come to the knowledge of the truth'.

be considered a plausible source.²⁵⁹ He deduces that St Paul is the ‘lord’ in question. However, neither passage bears a striking resemblance to the Nun’s Priest’s benediction, and, as Field points out, Chaucer ‘never has any character speak of any saint as my lord’.²⁶⁰ ‘Like [...] “the man of great auctorite” who never gets around to speaking at the end of [the *House of Fame*],’ Helen Cooper concludes, ““my lord” remains a shadowy figure who casts things into doubt; but we are never quite sure what things, or how much doubt’.²⁶¹

There is, however, sufficient evidence to give shape and colour to Cooper’s ‘shadowy figure’. Chaucer has used the image of wheat-sifting once already in the tale, in his earlier discussion of foreknowledge and determinism:

But I ne kan nat bulte it to the bren
As kan the hooly doctour Augustyn,
Or Boece, or the Bisshop Bradwardyn[.] (3240-42)

His reference to ‘fruyt’ and ‘chaff’ just before the closing benediction is almost certainly intended to direct our thoughts back to this earlier discussion of necessity and free will. Not only does Chaucer elevate Bradwardine to a remarkable extent by naming him in the same breath as two of the greatest authorities within medieval thought (Augustine of Hippo and Boethius), but he also goes out of his way to identify him (and not Augustine) as a ‘Bisshop’, and thus a proper recipient of the address ‘my lord’. We might follow the rule of William of Ockham, a contemporary and opponent of Bradwardine: *entia non sunt multiplicanda praeter necessitate* (‘entities should not be multiplied beyond necessity’).²⁶² Why formulate a reference to Courtenay, or even Braybroke, when we have one, and only one, Archbishop of Canterbury already ostentatiously cited in the tale? On the other hand, the solutions proposed

²⁵⁹ The final words of the homily (taken from *Mirk’s Festial*) given in Correale (‘Nun’s Priest’s Tale, 3444-46’, p. 45) run: ‘And he þat so doþe, he schall come to Saynt Paule and have þe ioye þat euer schall last. To þe wech ioye God bring us all, yf hyt be his wyll. Amen.’

²⁶⁰ Field, ‘Ending of the Nun’s Priest’s Tale’, p. 303.

²⁶¹ Cooper, *Canterbury Tales*, p. 350.

²⁶² This particular formulation of the rule is not actually found anywhere in Ockham’s extant works, although it neatly sums up an attitude that undeniably underpins Ockham’s nominalism. See Spade and Panaccio, ‘William of Ockham’, in *SEP*.

by Correale, Payne and Field all fail to ‘save the appearances’, since they discount the substantial evidence that the referent of ‘my lord’ is a bishop, and especially an Archbishop of Canterbury. As Field himself accepts, his ‘unusual’ reading only has any weight because ‘all the other possibilities seem to have been ruled out’.²⁶³ Yet I am not aware that either Field, or any other modern critic, commentator or editor, has considered Bradwardine as a possibility. As it happens, a reference to Bradwardine makes perfect sense of the passage both in its own terms and within the context of the tale as a whole.

Bradwardine’s ‘determinism’ has been characterised with varying degrees of extremity by modern scholars, a problem complicated (for the Chaucer critic) by the fact that by the time the Nun’s Priest’s Tale was composed, Bradwardine’s nuanced determinism had been inherited and, to some extent, simplified and carried to the very edge of orthodoxy by Wyclif, which may well have given Chaucer a rather skewed view of the Archbishop’s theology. Nevertheless, the sentiments expressed in the closing prayer of the Nun’s Priest’s Tale neatly summarise the basic principle of his anti-Pelagian soteriological position: namely, that no man can be or become ‘goode’ except by the will of God, who also grants final salvation only on the basis of His predetermining will. Furthermore, the form of words chosen by Chaucer to express these sentiments finds specific parallels in a number of passages of *De causa Dei*.

In the most famous chapter of the whole treatise (Book I, Chapter 35), Bradwardine describes how reading St Paul’s Epistle to the Romans was central to his new-found emphasis on God’s *grace*, which he equates with the will of God: ‘videbar mihi videre a longe gratiam Dei omnia bona merita praecedentem tempore et natura, scilicet gratam Dei voluntatem’ (‘it seemed to me that the *grace* of God (that is, the *gracious will* of God), taking precedence in

²⁶³ Field, ‘Ending of the Nun’s Priest’s Tale’, p. 305.

time and by nature, sees all good merits as if from a distance’).²⁶⁴ He goes on to recapitulate the fundamental premise of his argument, that God is the source of all good: ‘per primam suppositionem Deus est tantum bonum’ (‘according to the initial supposition, God is the greatest good’).²⁶⁵ It is therefore God who makes bad men like good men: ‘*si vellet dare malo bona merita et seruare ea, sicut facit bono, ipse mereretur, et perseueraret similiter sicut bonus*’ (‘if [God] willed to give good merits to a bad man and preserve them, just as he does with a good man, then that man would merit and persevere just like a good man’). He also anticipates the response of his opponents: ‘Nec potest dici, quod *dat huic bona merita*, quia praescit quod bene vsurus est illis, quia ita faceret quilibet, *si Deus vellet* quod bene vteretur illis’ (‘Nor can it be said that *God gives good merits* to any man because he already knows that this man is someone who will use them well, since anyone could do so, *if God willed* that he would make good use of them’).²⁶⁶ Man can only be ‘goode’, indeed he can only use well the goodness that God gives, *if it is God’s will*. Here we find all the essential elements of the Nun’s Priest’s benediction: the goodness of God, the necessity of His ‘wille’ to make us ‘goode men’, and even a prominent reference to Romans, the same epistle that the Nun’s Priest cites immediately beforehand.

The final chapter of Book II takes the form of an extended prayer or apostrophe to God, who Bradwardine addresses as ‘bone Deus’: ‘goode God’.²⁶⁷ Here his use of the second person finds its echo in the Nun’s Priest’s own prayer: ‘*quem vis [...] exaltas; [...] quem vis praedestinas atque saluas, et quem vis reprobas atque damnas*’ (‘whomever you wish you raise on high, whomever you wish you predestine and save, whomever you wish you reject and condemn’).²⁶⁸ *Quem vis exaltas*: ‘if that it be thy wille [...] brynge us to

²⁶⁴ Bradwardine, *De causa Dei*, p. 308 (all emphases in quotations from this text are my own). All further references will be to this edition.

²⁶⁵ Bradwardine, *De causa Dei*, p. 309.

²⁶⁶ Bradwardine, *De causa Dei*, p. 309.

²⁶⁷ Bradwardine, *De causa Dei*, p. 627.

²⁶⁸ Bradwardine, *De causa Dei*, p. 626.

[...] *heighe blisse*': the similarity with the Nun's Priest's wording is striking. Interestingly, Bradwardine proceeds almost immediately to cite Nebuchadnezzar as an example of God's reprobation, the Old Testament figure whose prophetic dreams, interpreted by Daniel, so impress Chaucer's Chauntecleer (3127-29).

Field acknowledges that if his interpretation of 'my lord' as Christ is incorrect, then the similarity that Patterson noticed between the Nun's Priest's benediction and the Lord's Prayer would imply instead 'that the Nun's Priest was quoting someone who was quoting [Christ]'.²⁶⁹ Once again, Bradwardine fits the bill. In another famous passage of *De causa Dei*, he discusses the problem that not all divinely given prophecies seem to come true, even in the Scriptures.²⁷⁰ His answer is that such prophecies are given as warnings and that since God intends them to bring about repentance, his revealed will does in fact come about even if the impending disaster is averted. However, this solution apparently leads to some thorny consequences for the theology of prayer, and Bradwardine finds it necessary to consider a common objection of his 'Pelagian' opponents.²⁷¹ Surely if Bradwardine's God wants something to happen, it will happen whether or not we pray; and if He does not want it to happen, then prayer cannot make it happen: 'ergo superfluum omnes preces' ('therefore all prayers are a waste of time'), and further, 'non esset generaliter orandum pro omnibus, nec pro quolibet proximo viatore' ('one ought not generally to pray for all men, nor for one's neighbour'), because we do not know whom God wishes to be saved.²⁷² To solve the problem, he considers Christ's prayer in Gethsemane ('non sicut ego volo, sed *sicut tu vis*': 'not as I will but as you will': Matthew xxvi.39) and then the Lord's Prayer itself. He concludes: 'Vix igitur meo iudicio aliqua vtilior, aut efficacior oratio [...] poterit inueniri, quam quod homo [...] Domino semper dicat; *Fiat voluntas tua*' ('in my opinion, therefore,

²⁶⁹ Field, 'Ending of Chaucer's Nun's Priest's Tale', p. 304.

²⁷⁰ Bradwardine, *De causa Dei*, pp. 249-50.

²⁷¹ See, for example, Holcot, *Seeing the Future*, p. 191.

²⁷² Bradwardine, *De causa Dei*, p. 249.

there can scarcely be found any more useful or more effective prayer than that man should always be saying to the Lord, Thy will be done').²⁷³ Mankind should pray for God's will to be done, even in the question of our salvation. Finally, the whole treatise concludes with a terse restatement of Bradwardine's faith in the supremacy of the divine will: 'necesse est [...] reprobos [...] habere supplicium, et electos *gaudium sempiternum*' ('it is necessary that the reprobate should have punishment and that the elect should have eternal joy').²⁷⁴ Bradwardine's 'heighe blisse' can be attained only if it is the will of God.²⁷⁵

Every aspect of the Nun's Priest's benediction thus finds both a general and a particular analogue or analogues in *De causa Dei*: 'bone Deus' is met with 'goode God'; 'if that it be thy wille' answers 'si Deus vellet', 'quam vis' and 'fiat voluntas tua'; 'dat huic bona merita' becomes 'make us alle goode men'; and 'brynge us to [...] heighe blisse' blends Bradwardine's 'exaltas' and 'gaudium eternum'. It seems that the earlier glossators were making the most natural assumption in the world when they read the phrase 'my lord': that Chaucer was citing the work of the only 'Bisshop' identified in the text, Thomas Bradwardine.

However, although the Bradwardinian controversy over predestination and necessity is thus repeatedly evoked in the tale, Bradwardine's own 'deterministic' model does not appear to explain the actual narrative that Chaucer constructs. In fact, as Payne argues, none of the three theories of foreknowledge and free will that the Nun's Priest summarises provides a suitable and comprehensive system by which to understand the action of the tale; not the *simple* necessity alleged of Bradwardine, nor the Augustinian fudge of simultaneous necessity and free will, nor the Boethian qualification of *conditional* necessity. There is,

²⁷³ Bradwardine, *De causa Dei*, p. 249.

²⁷⁴ Bradwardine, *De causa Dei*, p. 876. This is the last of a list of 36 propositions that Bradwardine endorses at the very end of his treatise, having previously condemned the opposite opinions (see p. 874 for the contrary proposition).

²⁷⁵ Field's contention that the 'lord' must be Christ because it is 'his heighe blisse' is easily answered: 'his' need not imply strict possession but can also mean, of course, 'that which he spoke about', and makes perfectly reasonable sense in the case of Bradwardine. See Field, 'Ending of Chaucer's Nun's Priest's Tale', p. 303.

however, a silent fourth contributor to the logical debate that drives the action of the tale: one of the ‘semi-Pelagian’ logicians and theologians against whom Bradwardine’s polemic was addressed and also a writer upon whose work significant portions of the tale (especially of the philosophical discussion between Chauntecleer and Pertelote) are substantially based. Robert Holcot’s influence on the tale is, I will argue, even more substantial than has been recognised previously.

Holcot’s Fabulous Logic

Although Holcot was principally a theologian and logician, much of his writing is characterised by an openness to a range of effects and possibilities that are generally more characteristic of ‘literary’ texts. His *Sermo finalis*, for example, is clearly light-hearted in nature and often highly ironic, being most probably a festive end-of-term speech.²⁷⁶ In it Holcot builds what Katherine Tachau describes as ‘an extended play on the notion of pursuing and attaining theological wisdom as a two-year courtship and marriage, leading eventually to sexual satisfaction’.²⁷⁷ He then constructs a series of humorous characterisations of himself and his colleagues as animals. He puns on their ‘status as [...] *Dominicanes* with a talent for racing as “the Lord’s hounds”’ and presents a parodic analysis of the name of his successor as *cursor* (the giver of what were called ‘cursory’ lectures, but also literally ‘runner’):

Nomen enim suum in vulgari est *Roger*. In quo quidem nomine duae bestiae designantur quae inter animalia communia inveniuntur cursui magis apta, viz, caprea et canis. *Ro* enim anglice latine dicitur caprea, et ipsum totum vocabulum quod est Roger canibus convenit per appellationem.²⁷⁸

(For his name in the vernacular is *Roger*. In this name, two animals are signified which among the ‘Animal Kingdom’ are the best at running, namely the deer and the hound. For, in English ‘Ro’ means

²⁷⁶ Tachau, ‘Looking Gravely’, p. 339.

²⁷⁷ Tachau, ‘Looking Gravely’, p. 339.

²⁷⁸ Wey, ‘The Sermo Finalis’, p. 222.

the same as deer in Latin, and the whole word ‘Roger’ is itself used as a name for dogs.)

As Tachau notes, ‘Holcot is inspired to find a third species of runners in Roger’s cognomen, Gosford, construed as a ford (*vadum*) for a goose (*aucae*).’²⁷⁹ Her research has demonstrated that neither this sort of wordplay nor the light-heartedness of the speech is unique to Holcot.²⁸⁰ In fact, ‘the authors of Sentences commentaries commonly embedded their own cognomens implicitly (and often obscurely) in the biblical tags they chose as their incipits’ and Holcot takes great delight in doing the same thing in his *Wisdom Commentary*.²⁸¹ Yet Holcot’s relish for subversive innuendo, parodic etymologies and animalistic characterisations seems much more than merely conventional, and it would have made enjoyable reading for the author of the *Miller’s Tale*, the *Second Nun’s Prologue* and the *Nun’s Priest’s Tale*.²⁸²

Examples like this serve to illustrate Holcot’s place in an intellectual milieu as much literary as philosophical, under the patronage of Richard of Bury:

A determined collector of books whose *Philobiblon* (perhaps ghostwritten by Holcot) gives us the term ‘bibliophile’, de Bury collected scholars just as avidly, especially when convinced that their talents encompassed the new ‘English perspicacity and subtlety’ that he regarded with chauvinistic pride.²⁸³

The *Philobiblon*, whether it is Holcot’s work directly or not, provides yet more evidence of the interaction of fourteenth-century scholastic thought with the category of texts that we would tend to call ‘literary’. In the thirteenth chapter, entitled ‘Why We Have Not Wholly Neglected the Fables of the Poets’, Richard of Bury (or perhaps Holcot) writes:

How many students of Euclid have been repelled by the Pons Asinorum [*Ellefuga*], as by a lofty and precipitous rock, which no help of ladders could enable them to scale! THIS IS A HARD SAYING,

²⁷⁹ Streveler and Tachau, ‘Introduction’, in Holcot, *Seeing the Future*, pp. 11-14.

²⁸⁰ In ‘Looking Gravely’, Tachau argues that Ralph Friesby’s *Collatio finalis* is a festive speech of similar character.

²⁸¹ Tachau, ‘Looking Gravely’, pp. 337-38.

²⁸² See, for instance, the perhaps mischievous recycling of such dubious etymologies in the *Second Nun’s Prologue* (VIII. 85-119).

²⁸³ Tachau, ‘Logic’s God’, p. 243.

they exclaim, AND WHO CAN RECEIVE IT. The child of inconstancy, who ended by wishing to be transformed into an ass, would perhaps never have given up the study of philosophy, if he had met him in friendly guise veiled under the cloak of pleasure; but anon, astonished by Crato's chair and struck dumb by his endless questions, as by a sudden thunderbolt, he saw no refuge but in flight.²⁸⁴

This passage mingles the imagery of university mathematics, logic, philosophy and the moral fable, clearly illustrating the fourteenth-century awareness of the overlap in genres. Notice especially the presence of the man-as-ass, one of the commonest characters of the *sophismata*. The 'child of inconstancy' is a reference to a story told in the Pseudo-Boethian *De disciplina scolarium*. This was a text that was well known among fourteenth-century friars, in which the questions of Crato to the 'filium inconstantiae' include a number that share sophistic imagery, such as the man half-black, half-white which was to become a staple of the later medieval *sophismata*.²⁸⁵

Beryl Smalley has emphasised the vivid imagery and sheer *literariness* of Holcot's Biblical commentaries.²⁸⁶ However, it is important to note that many of the images that Holcot uses in his 'pictures' have, as part of their complex and shared ancestry, their widespread use as sophistic terms: for instance, the King turned black, the young boy, the chimera and so on.²⁸⁷ Holcot's literary style is informed by his logical imagination as much as by the classical influences upon which Smalley focuses. In the Wisdom commentary, the text which Pratt has shown Chaucer might have used in the Nun's Priest's Tale, Holcot

²⁸⁴ Richard de Bury, *The Love of Books*, Chapter XIII.

²⁸⁵ *De disciplina scolarium*, ed. by Weijers, pp. 104-108. One of the questions is as follows (p. 106): 'cum unum generancium album, reliquum nigrum, quare generatum non album et nigrum' ('Why, when one parent is white and the other black, the child is not white and black'). For more detail on the 'Inconstant Scholar' fable, see Gabriel, 'Source of the Anecdote'. For an example of the black-and-white-man of the medieval *sophismata*, see Wilson, *Heytesbury*, p. 23. The sophism referred to is Heytesbury, *Sophismata* (Sophism 5, pp. 20-21, fols 91^{rb}-97^{ra} (fol. 93^{rb})). The hypothetical character suggested in the Pseudo-Boethian question bears a resemblance to Feirefiz, the 'piebald' son of Gahmuret the Angevin and the Moorish queen, Belacane, in Wolfram's *Parzival*: see Wolfram von Eschenbach, *Parzival*, p. 40 (end of Chapter 1).

²⁸⁶ Smalley, *English Friars*, pp. 172-78.

²⁸⁷ Smalley, *English Friars*, pp. 172-78; Smalley is summarising the 'pictures' found in Oxford, Bodleian Library MS Bodley 722 (2648) fols 3-136.

explicitly links his theological concerns to broader logico-philosophical and mathematical questions. For instance, in discussing the question of the immortality of the soul:

mundus *inceptit* esse vel mundus non *inceptit* esse; et tamen neutrum istorum *demonstrative probari* potest ... Similiter *quadratura circuli* certa est; tamen eius *demonstratio* tempore Aristotelis inventa non fuit.²⁸⁸

(either the world began to be or the world did not begin to be: and yet neither of these can be demonstrably proven ... Similarly the squaring of the circle is certain; yet how to demonstrate this has not been discovered since the time of Aristotle.)

The immortality of the soul is like the logical problems *de incipit* and the mathematical problem of squaring the circle.

Another example is the following passage from his commentary on the *Sentences* which discusses the Carmelites' claim to have been founded by Elijah on the grounds that Elijah's father had a dream of men dressed in white:

Argumenta etiam non *concludunt*, quia non *sequitur*: vidit [...] viros candidos [...], ergo carmelitas. Tunc enim *sequeretur* quod molendinarii vel pastores communiter essent carmeliti.²⁸⁹

(Their arguments are not conclusive, because it does not follow that, 'he saw men clothed in white; therefore [they were] Carmelites'. For in that case it would follow that a group of millers or shepherds are Carmelites.)

In other words, the syllogism, 'I saw something white; a Carmelite is something white; therefore I saw a Carmelite', is invalid; for it would equally follow that millers and shepherds are Carmelites too. Again, the form, terminology and choice of terms are typical of logical treatises on *sophismata* and *consequentiae*.²⁹⁰ Thus it would be artificial to see a disjunction

²⁸⁸ Given in Smalley, *English Friars*, pp. 329-330; citing *Lectio XV* of the Wisdom Commentary: Oxford, Balliol College MS 27, fol. 26^{va} (my emphases). Heytesbury makes a similar point, also using the example of squaring the circle: Heytesbury, *On 'Insoluble' Sentences*, p. 15.

²⁸⁹ Given in Smalley, *English Friars*, pp. 330-31, citing Oxford, Bodleian Library MS Bodley 722 (2648), fols 50^v-51 (my emphases).

²⁹⁰ Neil Cartlidge has noted a criticism of Carmelites (or perhaps the Augustinians), similar in spirit to Holcot's, in the 'Hoc contra malos' commentary on Walter Map's *Dissuasio Valerii* ('Misogyny in a Medieval University?', p. 171). It may be possible that Holcot knew the commentary: indeed, in at least one fourteenth-century manuscript (Cambridge, St John's College MS E 12), it is found directly preceding the *Philobiblon*. If he did, he has taken some care to adapt that argument into a tighter logical form. Both Lynch and Travis notice

between Holcot's logical, theological and literary concerns: Holcot's characteristic modes of thought and expression cross generic boundaries.

Furthermore, Holcot was apparently not averse to referring to beast-fables even in his theological writings. For instance, Alan Fletcher has argued that Holcot makes some detailed use of *The Owl and the Nightingale* in his *Moralitates*. As a humorous poem featuring a debate between two birds, *The Owl and the Nightingale* is a text comparable in form, and as its most recent editor puts it, 'similar in spirit' to the later Nun's Priest's Tale.²⁹¹ It is not particularly surprising that a logician should take an interest in the beast fable form, given that it is a common conceit of the *sophismata* to transfer the qualities of one species onto another, including onto humans: asses, horses, mules, dogs, birds, goats and cows all feature in Buridan's collection, for example. Nor, then, is it *a priori* improbable that an intelligent beast fable writer should take a playful interest in the topsy-turvy world of logic: a philosophising chicken fits easily into a world of laughing donkeys and neighing men. If, as Ian Bishop suggests, Chaucer 'writes [in the Nun's Priest's Tale] as one who is tired of hearing the medieval commonplace that Man (*animal rationale*) possesses intelligence in common with the angels and that his reason is what distinguishes him from the beasts', then he certainly also writes as one who is delighted by the fact that the proposition 'homo est animal' is one of the commonest propositions of the *sophismata*, frequently used as part of a syllogism to justify ridiculous conclusions such as, 'a man is an ass'.²⁹²

the 'ubiquity' (to use Lynch's word) of the terms 'white' and 'whiteness' in late-medieval philosophical treatises, especially in logical discussions. See Lynch, *Visions*, p. 51 and Travis, 'White'.

²⁹¹ Cartlidge, *Owl and Nightingale*, p. 142. This argument is strengthened by the fact that, as Cartlidge has argued, a Nicholas of Guildford who may have been the poem's author was living in Oxford as late as 1322, a few years before Holcot began to study there (see Alan Fletcher, 'The Genesis of "The Owl and the Nightingale": A New Hypothesis', pp. 2-4; Cartlidge, *Owl and the Nightingale*, p. 102; and Cartlidge, 'Nicholas of Guildford').

²⁹² Bishop, 'The Nun's Priest's Tale' p. 257.

Holcot's Wisdom Commentary

To Pratt's suggestion that 'Chaucer's selection, adaptation and transformation of Holcot's materials can be better understood with a knowledge of their context in the Wisdom Commentary', one might add that Chaucer's adaptation of Holcot's ideas can be better understood with a knowledge of their context within Holcot's work more generally.²⁹³ As Smalley herself points out, 'the Wisdom Books appealed to Holcot and his contemporaries as the biblical equivalent [...] of the philosophical "sentences" which they loved so well'.²⁹⁴ Indeed, not only does Holcot maintain the logical, even at times syllogistic, method of enquiry used in his commentaries as exemplified above, but, in the passages referred to in Chaucer's tale, he also discusses briefly the problem of divine revelation through dreams.

What is at issue in the Nun's Priest's Tale is not so much the problem of divine foreknowledge as the problem of divine foreknowledge *revealed*. It is Chauntecleer's 'prophetic' dream that provokes the narrator's brief discussion of simple and conditional necessity:

Thou were ful wel ywarned by thys dremes
That thilke day was perilous to thee;
But what that God forwoot moot nedes bee,
After the opinioun of certein clerkis. (3232-35)

This in itself justifies reading the Nun's Priest's Tale in the context of Holcot's theology, since it is in relation to divine *revelation* that Holcot discusses the question of future contingency. Arguing against an 'unnamed Oxford colleague [...] who had insisted that, once revealed, the future will come about of necessity', Holcot insists that future contingents maintain their contingency and that therefore 'there is a class of statements [...] about the

²⁹³ Pratt, 'Latin Sources', p. 538.

²⁹⁴ Smalley, *English Friars*, p. 148; also quoted by Pratt, 'Latin Sources', p. 539.

future such that the truth of any statement which is a member of the class remains contingent even after the statement's [divine] revelation'.²⁹⁵

Perhaps the most significant example of the problem as formulated by Holcot concerns the revelation by God to Socrates (who conventionally stands in the logical texts as a sort of 'Everyman' figure) that 'Socrates will be damned'.²⁹⁶ He argues as follows:

Ponatur igitur quod in rei veritate Sortes sit damnandus, ergo Deus potest hoc revelare Sorti. Quo facto, arguitur quod Sortes desperabit, quia tenetur credere Deo; ergo Deus erit auctor istius desperationis et sic erit auctor peccati.²⁹⁷

(Therefore let it be proposed that in real fact Socrates is going to be damned, in which case God can reveal this to Socrates. Which done, it is argued that Socrates will despair, because he has to believe God: therefore God will be the author of his despair and thus he will be the author of sin.)

If the reason for the despair is infallible divine Revelation, then in fact God is to blame for Socrates' despair and consequent damnation. Socrates, believing God's foreknowledge to be certain, despairs of salvation, and is indeed damned under the sin of 'wanhope'. Yet at the point of God's revelation, this outcome must be contingent upon Socrates' response to it, just as, in the 'Bridge' sophism discussed above, Plato's action in allowing or barring Socrates from crossing the bridge is contingent upon Socrates' next proposition. In other words, what God reveals as certain is in fact, at the point of revelation, contingent. Holcot reveals the nettle which he is about to grasp: 'Occurrit enim [...], si dixerimus quod oppositum revelati potest contingere, quod Deus potest decipere, mentiri, periurare, non solvere quod promisit, et fieri infidelis, et huiusmodi, quae bonis moribus repugnare videntur' ('For it follows, if we say that the opposite of what has been revealed can [still] be contingent, that God is able to

²⁹⁵ Holcot, *Seeing the Future*, p. 49.

²⁹⁶ Holcot, *Seeing the Future*, p. 63.

²⁹⁷ Holcot, *Seeing the Future*, p. 136 (*In Quatuor Libros Sententiarum Quaestiones*, Quaestio 2, Libri Secundi: 'Utrum Deus ab aeterno sciverit se producturum mundum') ('Whether God knew from eternity that he was going to create the world'). For his discussion of Boethius, see p. 174.

deceive, to lie, to break his oath, not to deliver what he has promised, and to be unfaithful, and so forth, which seems to be repugnant to good morals’).²⁹⁸ As Katherine Tachau puts it,

if we accept this conclusion, Holcot believes, then we must admit as a corollary that divine deception is logically possible where this particular class of propositions is concerned. Nor is divine deception limited to the realm of possibility (however construed); for Holcot, the Bible provides ample instances of historical deceptions by divine agency, direct and indirect.²⁹⁹

In fact, the primary Scriptural example that Holcot uses to demonstrate ‘quod Deus decipit per malos angelos et per malos homines’ (‘that God deceives by means of bad angels and bad men’), and ‘etiam per bonos’ (‘even through good ones’), is ‘quod Deus iussit filios Israel decipere Aegyptios’ (‘that God commanded the children of Israel to deceive the Egyptians’). Holcot supplements this example with the stories of Ahab and the lying spirit; Rebecca and Jacob’s deception of Isaac; Judith and Holofernes (an example also chosen by Chaucer’s Monk); Joshua and the enemy cities; even adding that ‘Christus voluit nasci de virgine ut deciperet diabolum’ (‘Christ wanted to be born of a virgin that he might deceive the devil’).³⁰⁰ He concludes that ‘nullum inconveniens video si dicatur quod Deus possit iurare falsum vel promittere se facturum et non facere, sicut potest homo’ (‘I see nothing problematic in saying that God can swear falsely or promise that He will do something and not do it, just as a man can’).³⁰¹ However, Holcot does qualify his controversial conclusion with the claim that ‘God will never deceive good men’, although he does not deny that He could.³⁰²

The same themes, examples and logical method of inquiry are apparent in the two lectures of Holcot’s *Wisdom*-commentary that Pratt has shown Chaucer drew upon in writing

²⁹⁸ Holcot, *Seeing the Future*, p. 76.

²⁹⁹ Holcot, *Seeing the Future*, pp. 49-50.

³⁰⁰ As Richard Firth Green notes, this is an idea that Anselm had specifically rejected: *Crisis of Truth*, p. 349. For Chaucer’s treatment of the doom of Holofernes, see the Monk’s Tale, vii. 2251-74.

³⁰¹ Holcot, *Seeing the Future*, pp. 156-57.

³⁰² Normore, ‘Future Contingents’, p. 374.

the Nun's Priest's Tale.³⁰³ In *Lectio* 201, Holcot again makes use of the example of the judgment God wrought on the Egyptians, devoting a passage to the analysis of the dreams which forewarned them of their inevitable destruction: we have already seen Holcot's concern with the revelation of reprobation and his use of this Old Testament narrative as an exemplar of God's willingness to deceive his enemies.³⁰⁴ It is in *Lectio* 102, however, that Holcot's wider concerns are most apparent. In that lecture, Holcot discusses the text, 'in animas sanctas se transfert: amicos dei et prophetas constituit' from Wisdom 7:27 ('[Wisdom] conveyeth herself into holy souls, she maketh the friends of God and prophets'). It is in this context of revealed *prophecy* that Holcot goes on to discuss dreaming.

Holcot seems to approach the Book of Wisdom as a set of quasi-*sophismata*. He formulates a paradoxical syllogism from the text's twin concepts of friendship with God and revealed divine wisdom:

Deus nulli dat donum sapientie nisi illi quem diligit. Sed deus nullum diligit nisi illum qui cum sapientia inhabitat. Ergo nulli alteri dat donum sapientie.

(God gives the gift of wisdom to none but him whom He loves. But God loves none but him who lives with wisdom [according to Wisdom 7:28]. Therefore he gives the gift of wisdom to no one else.)

There is what we might loosely call a 'chicken-and-egg' problem inherent in the text: if God only reveals wisdom ('prophetas constituit') to those he loves (the 'animas sanctas'), and yet being loved by God is the effect of being given wisdom ('amicos dei [...] constituit'), then how does the whole process get started? Next, following the standard method of the linguistic logician, Holcot attempts to dispose of any ambiguity in his own form of words, explaining 'qui cum sapientia inhabitat' as an example of hypallage, meaning 'those in whom wisdom lives'. Here Holcot takes a distinctly nominalistic line: 'wisdom' is a reference not to a universal abstract but to a particular individual – in this case, 'Dei filius', Christ himself.

³⁰³ Quotations are taken from Holcot, *Super Libros Sapientiae* (Hagenau).

³⁰⁴ See also Pratt, 'Latin Sources', pp. 540-41. Pratt takes his numbering from Oxford, Balliol College MS 27, and thus his numbering of the *Lectiones* is higher by one than mine (see his note on pp. 539-40).

It starts to become clear where Holcot is going. He quickly poses a provisional ‘solution’ to this particular problem in a way that ties it into the broader concerns of his *Quodlibetal quaestiones* and *Sentences* commentary, and to the broader fourteenth-century controversy surrounding soteriological predestination. Holcot is one of the ‘Pelagians’ against whom Bradwardine argued so furiously in *De causa Dei*; and the ‘chicken-and-egg’ problem outlined above constitutes the essence of that debate. For Holcot, God will give grace to those who do what is in them (*quod in se est*); for Bradwardine, what is in them is only the gracious gift of God. So, in *Lectio* 102, Holcot first proposes a Bradwardinian ‘solution’: ‘Neminem etiam diligit deus tamquam electum’ (‘God loves nobody as much as the elect’). In true scholastic fashion, Holcot then draws a conclusion from a proposed solution before proceeding to argue the contrary position. In this case, he concludes that God therefore only gives revelation to friends of God, that is to the elect. Against this conclusion, however, he posits Scriptural counterexamples, such as the case of Balaam in Numbers 22-23 and the implications of Corinthians 13 (that one might have the gift of prophecy without charity). These cases demonstrate how God manipulates revelation in order to confound his enemies and assist his friends: ‘tunc etiam ad honorem domini est quod secretum quo est contrarium inimico et utile amicis per inimico potius divulgat’ (‘for then it is to the honour of God that a secret which is harmful to the enemy and useful to [his] friends should better be revealed through the enemy’). Holcot’s God is, as it were, not above playing tricks, granting the gift of revelation to his enemies in such a way as to work against them, divulging their own defeat.

Finally, Holcot tackles the question of dream revelation in relation to future contingency, the engine of his controversial thesis of divine deceit. Discussing whether dreams arise from God or from nature, Holcot posits the following syllogism:

Sed contra ista videtur quod divinatio per somnia non sit possibilis, quia divinatio importat certitudinem: sed certitudo nulla potest haberi de adventu futuro propter somnium. Ergo nihil est.

(But against this it seems that divination through dreams is not possible, because divination confers certitude: but there can be no certitude concerning the contingent future on account of a dream. Therefore there is no such thing.)

As we have discussed above, the question of whether divine revelation ‘importat certitudinem’ was central to Holcot’s solution to the predestination problem. Here he is tackling the same issue, albeit in rather condensed form, in his *Wisdom* commentary. It is in the context of this wider discussion that we should understand Holcot’s citation of the proverbial ‘Somnia ne cures’, which Chaucer’s *Pertelote* quotes in translation, attributing it to Cato. Yet as Pratt points out,

Holcot had not quoted couplet 2.31 of the *Disticha* which flourished under the title or name of ‘Cato’:

Somnia ne cures, nam mens humana quod optat,
dum vigilat, sperat, per somnium cernit id ipsum.

[Take no notice of dreams, for the human mind, which while awake, chooses and hopes, sees in a dream the thing [it hoped for].]

Instead he had cited a line which has the same wording that he used – or nearly the same – in a number of medieval manuscripts:

Sompnia ne cures, nam fallunt sompnia plures.³⁰⁵

[Take no notice of dreams, for most dreams are deceitful.]

Given the wider context of Holcot’s theology and logic, his choice to use the variant form now becomes more explicable. His interest lies not in dreams as empty reflections of the human mind (‘mens humana’) but rather in that fact that dreams deceive (‘fallunt sompnia’): if God can use revelation to deceive and thus overthrow his enemies, dreams can be deceptive, even if they are of divine origin.

³⁰⁵ Pratt, ‘Latin Sources’, p. 545; the translations are my own.

A Holcotian Reading of the Nun's Priest's Tale

Robert Pratt, who argued for Chaucer's use of Holcot's Wisdom commentary in the Nun's Priest's Tale, has also demonstrated that Chaucer 'was intimately acquainted with Branch II of the *Roman de Renart*'.³⁰⁶ In his article on 'Three Old French Sources of the Nonnes Preestes Tale', he gives a list of verbal parallels that put the matter beyond reasonable doubt. There is, however, a significant structural difference between Chaucer's narrative and that of his source. In *Le Roman de Renart*, Pinte, the French equivalent of Pertelote, does not argue *against* the validity of the dream's revelation, but rather it is she herself who urges Chantecler to take the dream seriously and *he* dismisses her warnings: the exact opposite of Chaucer's tale.³⁰⁷ Partly for this reason, Pratt argues that Chaucer also knew *Le Roman de Renart le Contrefait*, in which Pinte does urge Chantecler not to be a coward.³⁰⁸ Yet the basis of Pinte's rebuke in *le Contrefait* is not Pertelote's out-of-hand dismissal of revelatory dreams, but rather a sort of 'que sera sera' logic: 'Preng le temps ainsi qu'il venra, / Qui pour toy quoy ne se tenrra' ('Take the future as it comes; it will not hold itself back for you alone').³⁰⁹ This argument, along with her repeated warnings against cowardice, leads the cock to exclaim 'Or adviengne [...] qu'aviengne, / Mais que mal eür ne me tiengne!' ('Now come what will [...] but may bad luck not take me').³¹⁰

Chaucer's inversion of the argument in *Le Roman de Renart*, making Pertelote the sceptic and Chauntecleer the determinist, is more startling given that Chaucer's 'fatalistic'

³⁰⁶ Pratt, 'French Sources I', pp. 423-24.

³⁰⁷ Correale and Hamel, *Sources and Analogues*, I, pp. 456-74; see especially pp. 464-67 (lines 219-73). Line 220 (p. 465: 'Mes, se Dex plest, ce est mençoigne' ('but please God, it's a false one')) is expressing Pinte's desperate desire, rather than her opinion, which is that the dream will certainly be fulfilled: 'Tot soürement le vos di: / Ainz que voiez passé midi, / Vos avandra, ce est la voire.' ('I give you my firm assurance: before you've got past midday, that's truly what will happen to you' (Lines 251-53; pp. 464-65)).

³⁰⁸ See Pratt, 'French Sources I', p. 433.

³⁰⁹ *Le Roman de Renart le Contrefait*, in Correale and Hamel, *Sources and Analogues*, I, pp. 474-87 (lines 31471-72): all translations are those of Correale and Hamel.

³¹⁰ Correale and Hamel, *Sources and Analogues*, I, pp. 480-81 (line 31477). The phrase 'Or adviengne [...] qu'aviengne' bears similarities to the most controversial of the propositions that Bradwardine discusses in the *De causa Dei*, p. 637, later taken up by Wyclif: 'omnia quae eveniunt eveniunt de necessitate': Wyclif, 'Responsiones as argumenta Radulfi Strode', in *Opera Minora*, pp. 175-200 (p. 181). See below for a discussion of Chaucer's use of this proposition in *Troilus and Criseyde*.

cock still ultimately behaves just like his French sceptic counterpart, by going outside anyway.³¹¹ As Ian Bishop comments, Chauntecleer's '*volte face* is [...] blatant and outrageous',³¹² especially since Chaucer adapts his sources to have the conclusion of the argument anticipate the opposite course of action, as Pratt explains:

After Chauntecleer presents his exempla in support of divination through dreams, Chaucer takes from the *Roman de Renart* the cock's assertion, 'Ja nel crerai ... / Que j'aie mal por icest songe' (268-69) and by omission of the negative has his Chauntecleer say the direct opposite: 'I shal han of this avisioun / Adversitee' (3152-53). Thus while both *Renart le Contrefait* and the Nonnes Preestes Tale show a reversal of the attitudes of cock and hen as found in the *Roman*, Chaucer's Chauntecleer goes even further than the Chantecler of the *clerc de Troyes* in taking a strong positive stand in support of the significance of dreams.³¹³

The question is why Chaucer would go to some trouble to make his rooster-philosopher argue so vociferously for the validity of the dream, make a strongly deterministic conclusion (with a tone more definite than Pinte's general air of fatalism in *Renart le Contrefait*), and then, without further explanation, go into the yard anyway.

Bishop suggests that fear of Pertelote's prescribed 'laxatyves' (3154) is what motivates Chauntecleer's counter-intuitive behaviour, but a comparison with *Renart le Contrefait* suggests a more interesting and thematically significant interpretation.³¹⁴ At the crucial moment, Chaucer chooses to leave the reasoning deliberately ambiguous by using a pun, when Chauntecleer announces, 'I *diffye* bothe sweven and dreem' (3171). The word 'diffye' here can be read in no fewer than three different ways. First, it may simply mean 'renounce', suggesting that Chauntecleer has suddenly and mysteriously changed his mind about the significance of dreams, despite winning the argument. Second, 'diffye' probably carries more of its modern meaning ('defy') in this context, and indicates that Chauntecleer is

³¹¹ Pratt, 'French Sources I', p. 433.

³¹² Bishop, 'Nun's Priest's Tale', p. 266. Jill Mann also notices 'the glaring discrepancy between Chauntecleer's position in the argument and his subsequent behaviour': *From Aesop to Reynard*, p. 255.

³¹³ Pratt, 'French Sources I', p. 433.

³¹⁴ Bishop, 'Nun's Priest's Tale', p. 266.

refusing to alter his behaviour, in spite of his belief that he will have ‘adversitee’ (3153) from the dream: Chaucer’s cock thus shares the deterministic logic that convinces his counterpart in *Renart le Contrefait*. Third, however, there is a typically Chaucerian pun on ‘diffye’, for which the audience is prepared when Chaucer uses the same word a few lines earlier about the laxatives: ‘I hem diffye’ (3156). Here the joke is straightforward: ‘diffye’ can mean ‘digest’, from the Latin ‘defaecare’, which is exactly what laxatives are for. The verb can be applied figuratively to abstractions, meaning to ‘assimilate’, and in this sense it is applied to religious doctrine in an early fifteenth-century Wycliffite sermon, which self-consciously utilises the bodily simile.³¹⁵ Thus when Chaucer uses the same verb just 15 lines later, the audience has already been given a clear indication that it can be read in this way: rather than digesting Pertelote’s laxatives, Chauntecleer will digest the dream, much as he might accept a new religious truth. This reading is supported by the fact that Chaucer goes on to use a substance typically used as chicken feed as his image for the competing doctrines of necessity and free will: ‘I ne kan nat bulte it to the bren’ (3240). In his essay on laxatives in the Nun’s Priest’s Tale, Patrick Gallacher, who has already commented upon digestion as an image of assimilating religious doctrine, expounds the line as follows:

That is, he cannot sufficiently sift the flour and bran of this problem so as to provide us with sustenance. Food here is a symbol of understanding in the context of the basic dilemma of tragedy: to what extent is a man free and responsible and to what extent determined by fate?³¹⁶

In other words, Chauntecleer’s alternative at the conclusion of the debate is to renounce the dream and digest the laxatives, as Pertelote suggests, or digest the dream and renounce the laxatives; and he chooses the latter.

In effect, Chaucer constructs a situation in which, as Grover Furr explains, Chauntecleer’s decision to go into the yard ‘may be seen as a logical result of his determinist

³¹⁵ MED, ‘defien’, v.2., 1a and 1f.

³¹⁶ Gallacher, ‘Food, Laxatives, and Catharsis’, p. 63. For the religious connection, as far back as Plato, see p. 49. Gallacher does not appear to notice the particular pun on ‘diffye’.

interpretation of his dream: he is to have “adversitee” sometime, not necessarily that day; and there is nothing he can do about it, so he acts as though he never had the dream at all”.³¹⁷ Chauntecleer *believes* the dream to be revelatory, and therefore acts in accordance with what he considers to be a pre-determined series of events. The irony is that while the narrator *cites* Bradwardine, the rooster silently constructs the arguments that lead him to his deterministic conclusion with material from the work of Bradwardine’s ‘Pelagian’ adversary, Holcot. Chauntecleer is thus in the same position as the unfortunate subject of Holcot’s ‘Sortes dampnabitur’ sophism. Holcot’s ‘Socrates’ is a determinist who believes that, because God has revealed his damnation to him, therefore he must be damned: he gives up hope of salvation, and is damned for it.

Once again it is essential to recognise that this is not merely a theological problem, but also, and at its heart, a logical one, structurally similar to the ‘Bridge’ sophism discussed above, only with God playing the role of Plato. God makes a promise of salvation to those who trust Him for salvation. Socrates trusts God when He says that Socrates will be damned: does Socrates merit salvation or damnation? To put it another way, those who believe the truth God has revealed will be saved; Socrates believes the divinely revealed proposition that he will be damned. If God then damns him, He should have saved him for believing His revealed truth; if God saves him, He should have damned him for believing falsely and despairing of his own salvation. This problem is also crucial to understanding the relationship between the *Troilus* and Strode’s controversy with Wyclif, to which I will return below.

Thus the tale of Chauntecleer is not really the ‘murie tale’ for which the host mistakes it (3449), but a carefully constructed logical scenario, what a fourteenth-century logician would call a ‘casus’ and what the Nun’s Priest calls a ‘cas’ (3204), devised to present a

³¹⁷ Furr, ‘The Nun’s Priest’s Tale and Nominalism’, p. 143. Despite its useful analysis of the tale, Furr’s chapter, and indeed the book as a whole, sometimes exemplifies the over-emphasis on the slightly monolithic notion of ‘nominalism’ that I criticise in the Introduction.

particular problem. It is itself a kind of ‘thought-experiment’, the hypothetical test-case especially beloved by the Oxford Calculators; and just as the ‘thought-experiments’ of fourteenth-century logicians like Heytesbury proceeded ‘secundum imaginationem’, so Chauntecleer’s doom is ‘by heigh ymaginacioun forncast’ (3217). The term ‘imagination’ here is usually explained either in terms of Chauntecleer’s vision, or God’s foreknowledge, or the fox’s cunning;³¹⁸ but coming just a few lines after another piece of technical terminology (‘cas’), it is quite possibly a reference to the hypothetical nature of the narrative. The imagination is the hypothesising of the pseudo-logician-narrator constructing the tale.

As discussed above, a number of problems like that of the bridge crossing were developed *secundum imaginationem* in the first half of the fourteenth century as two-stage extensions of the insoluble Liar paradox; and these problems were, in turn, explicitly discussed in relation to the problem of future contingency. It is interesting, then, that the Nun’s Priest’s Tale has been said to contain at least two different versions of the ‘Liar’ problem, which demonstrate that Chaucer’s interest is in future contingency as a logical, as much as a theological, problem. First, Peter Travis argues that, in the following lines, ‘Chaucer’s educated readers would immediately have recognized the narrator’s assertion concerning the truth-value of his own beast fable as belonging to that large category of propositions called *sophismata*’:³¹⁹ ‘This storie is also trewe, I undertake / As is the book of Launcelot de Lake’ (3211-12). Travis explains that the prose *Lancelot* was renowned as a

³¹⁸ See *The Riverside Chaucer*, p. 939 for a brief survey. Travis considers the argument that the imagination belongs to the fox, on the grounds that imagination is ‘a human faculty that God’s intellect absolutely transcends’ and that “‘forncast” [...] is a rather sinister word normally associated with treasonous plots’ and ‘while God is not a dark schemer, the fox is’ (*Disseminal Chaucer*, p. 322). Burnley also discusses the morally dubious connotations of the phrase ‘by heigh ymaginacioun forncast’, which he suggests functions as a legal term equivalent to the phrase ‘with “malice aforethought”’: Burnley, *Guide to Chaucer’s Language*, pp. 171-72; see also Burnley, *Chaucer’s Language and the Philosophers’ Tradition*, p. 110. Of course, if it is allowed that Chaucer mischievously attributes the possibility of mischief to the divine voice, then the darker connotations of ‘forncast’ could equally point to Chaucer’s presentation of Holcot’s God. The human faculty of logical imagination remains with the narrator who has constructed the ‘casus’.

³¹⁹ Travis, *Disseminal Chaucer*, p. 305.

‘lying’ text, and thus he explicates the couplet as a form of the two-stage Liar paradox, even making reference to one of Buridan’s *sophismata*.³²⁰

Second, in a rather different context, Edward Wheatley discusses the common medieval suspicion of the fable form, on the grounds that ‘fable is based upon falsity or is itself false’, and notices how Chaucer ingeniously implicates his own fabular narrative in this respect:

By stating that the tale will focus on the widow [in line 2824: ‘This wydwe, of which I telle yow my tale’], the Nun’s Priest makes the rest of the fable a lie in terms of the oral contract he has made with his listeners [...] (By the time the Nun’s Priest revises the description of his subject matter by stating, ‘My tale is of a cok, as ye may heere’ [3252], the listener / reader fully understands what the tale is about; into this revision Chaucer has structured a significant shift from what the authorial ‘I’ tells – a lie – to what the listening ‘you’ hears – a truth, of sorts.)³²¹

The point is that the fable form demands more than passive reception from its audience; rather it demands an active attempt to glean a moral truth from a literal lie, as the Nun’s Priest makes clear: ‘Taketh the fruyt, and lat the chaf be stille’ (3443). Wheatley’s focus is the fable form and its reputation, yet he draws attention to the significant fact that the Nun’s Priest’s Tale is *self-consciously* unreliable.³²² Here again the narrator plays with a reflexive falsehood not dissimilar to the kind explored in the *insolubilia*.

Furthermore, the potential distinction between what ‘I’ tell and what ‘you’ hear is an extremely important element of the fourteenth-century discussion of the Liar paradox: Walter Burley, Bradwardine, Heytesbury and Buridan all discuss the question of whether what a speaker says and what a listener hears him say can be different, or have different truth-values – in Heytesbury’s words, ‘Quidquid auditur a Socrate profertur a Platone’ (‘whatever is heard

³²⁰ Travis, *Disseminial Chaucer*, p. 308 and p. 306.

³²¹ Wheatley, *Mastering Aesop*, p. 105.

³²² Anne Payne also points out that ‘a fable, by commonly accepted medieval definition [was] an account of something that cannot have happened’: *Menippean Satire*, pp. 205-206.

by Socrates is spoken by Plato’).³²³ The point is central to the late-medieval rejection of a cassationist approach to the Liar paradox, discussed above. In summary, one cassationist approach asserts that someone pronouncing an insoluble is saying nothing at all, but as Bradwardine succinctly puts it, ‘Sortes auditur loqui, ergo Sortes dicit aliquid’ (‘if Socrates is heard to speak, then Socrates says something’).³²⁴ On this basis, Bradwardine rejects cassationism, as a *fable* of the sophists (‘fabulose sophisticantibus’), highlighting not only the general suspicion of fables in the later Middle Ages that Wheatley discusses, but also the figurative extension of the term ‘fable’ into the realm of pseudo-logic in the fourteenth century. For Bradwardine, at least, a *fable* can be a piece of *bad logic*, perhaps because only in a fable can the audience hear a truth when the narrator tells a lie.³²⁵

His application of ‘fabula’ to bad reasoning is perhaps not completely without precedent: the term ‘fabula’ is used to describe one of the spoof arithmetical problems in the *Propositiones ad acuendos iuvenes*, quoted in relation to the Summoner’s Tale above. It could perhaps mean, therefore, any example of dubious mathematics or logic. The term seems to carry similar connotations even in literary texts, such as *The Romaunt of the Rose*:

‘I wolde,’ seide Resoun, ‘thee ler,
Sith thou to lerne hast sich desir,
And shewe thee, withouten *fable*,
A thyng that is not *demonstrable*.’³²⁶

Here, Reasoun uses ‘fable’ not merely as a synonym for ‘lie’, but in contrast to a piece of logical terminology. He claims to be able to produce, without sophistry (‘fable’), a proposition that runs counter to formal logic: in fact, he goes on to give a whole string of

³²³ Heytesbury, *Sophismata* (Sophism 19, p. 1, fols 135^{rb}-136^{vb} (fol. 135^{rb})); see also Buridan, *Sophisms*, p. 188 (Chapter 8, Sophism 5); Bradwardine, *Insolubilia*, pp. 90-91 (I make use of Read’s translation below); for Burley, see ‘Insolubilia Walteri Burlei’, p. 269.

³²⁴ Bradwardine, *Insolubilia*, pp. 90-91.

³²⁵ Bradwardine, *Insolubilia*, pp. 90-91. Bradwardine is quoting Aristotle, *Metaphysics*, III, 1000a, trans. by Ross, p. 1580. See also Aristotle, *Metaphysics: Book B and Book K 1-2*, trans. by Madigan, p. 12, where the original Greek phrase is translated ‘mythical sophistries’. Aristotle, while he is discussing a subject of great interest to any medieval logician (universals and individuals), applies the particular phrase itself to those who follow the myths of Hesiod and others. Bradwardine is thus reapplying it literally: the ‘sophisticantibus’ are the sophistatists of his own time who take a different approach to the *insolubilia*.

³²⁶ *The Romaunt of the Rose*, B. 4685-88 (my emphases).

conventional paradoxes of love, including that of ‘wanhope’, the despairing belief in one’s own failure (or even damnation).³²⁷ Thus, in logical, mathematical and literary texts, the term ‘fable’ was capable of holding the connotations of dubious logical reasoning; and Chaucer’s own fable makes capital out of the apparent bad reputation of its genre.

Heytesbury explores the same question as Bradwardine in more detail, proposing a scenario in which Plato speaks a true proposition, ‘nullus homo est asinus’ (‘no man is an ass’), but Socrates misses the first word and only hears, ‘homo est asinus’ (‘man is an ass’): what Socrates hears, Plato speaks. However, the truth-values of what is heard and what is spoken are different, just as a fabulist might tell a lie (of sorts) and yet manage to communicate a truth to his audience.³²⁸ Perhaps this is what the Nun’s Priest means by the ‘chaf’ and ‘fruyt’ (3443) in his tale. Heytesbury’s choice of proposition, although very commonplace, is nevertheless interesting: Plato’s true statement of the fact that there is an absolute distinction between man and beast contains within it a false statement that conflates man and beast, just as the beast fable attempts to produce a uniquely human moral, yet contains within it an application of uniquely human characteristics to other animals. Chaucer’s Host similarly mishears the Nun’s Priest’s Tale, as he demonstrates by describing its narrator in gallinaceous terms (3450-57). As Wheatley says,

the Host fails to interpret the animals in the fable as representative of humans so as to glean a human, moral lesson from the fable; rather, he reads the body of the human before him as an animal’s, and he fantasizes that body back into a fabular setting, where it can abandon morality in pursuit of more than one hundred females. This is a completely inverted reading of the fable.³²⁹

While the fable attempts to discuss complex, uniquely human, even spiritual questions which cannot possibly apply to non-rational animals (‘nullus homo est asinus’), the host, like

³²⁷ *The Romaunt of the Rose*, B. 4708.

³²⁸ Heytesbury, *Sophismata* (Sophism 19, p. 1 fols 135^{rb}-136^{vb} (fol. 135^{rb})).

³²⁹ Wheatley, *Mastering Aesop*, p. 121.

Heytesbury's Socrates, hears only the absurd identity of man and beast ('homo est asinus'; or, in fact, in the words of one of Buridan's propositions, *homo est auis* ('a man is a bird')).³³⁰

How are these concerns over the problematic relation of truth and falsehood in the fable form relevant to the question of determinism and future contingency with which the Nun's Priest is so preoccupied? The problem of propositions whose truth-value is indeterminate or capable of changing over time is central to the fourteenth-century analysis of the two-stage Liar paradox and the insolubles that evolved from it, an analysis conducted in terms of future contingency, as I discussed above. Thus, in the 'Bridge' sophism, when Plato puts the ultimatum that if Socrates's next statement is true Plato will allow him to cross, but if it is false he will throw him in the river, Plato is making a statement about a contingent future: a statement that Buridan says is false. Similarly, even Bradwardine admits that,

Si autem ponatur quod a sit nomen commune cuilibet negative
respondenti vel responsuro et solum tali, et proponatur ista: tu es a,
tunc est dubitandum, quia dependet a contingenti futuro.

(But if it is proposed that A is a name common to each of those and
only those who respond or will respond negatively, and this is
proposed:

You are an A,

then it should be doubted, because it depends on the contingent
future).³³¹

³³⁰ Buridan, *Summulae de dialectica*, 3. 1. 6; for an edition of this section of the *Summulae*, see *Summulae in praedicamenta*, p. 16 (Buridan, *Summulae de dialectica*, trans. by Klima, p. 150). Travis discusses both the chase scene in relation to the sophistic propositions 'a man runs' and 'an animal runs' and Chauntecleer's cry of 'cok, cok', which is an apparently meaningless utterance that nevertheless contains the name of his species, and thus draws attention to the problematics of animal speech in the rest of the tale. The interaction between the logical and fabular tropes of animal-human transference manifests itself with extraordinary complexity and playfulness in the narrative. See Travis, *Disseminated Chaucer*, pp. 254-57 and pp. 326-33. Chaucer's interest in the signficatory power of apparently meaningless utterances is a concern shared with the Summoner's Tale: see my discussion of 'buf' above. Jill Mann notes Chaucer's comparison of the Summoner's own meaningless repetition of 'Questio quid juris' to the chattering of a 'jay': *From Aesop to Reynard*, pp. 192-93. She also provides a fruitful discussion of the part played by the animal-human dichotomy in the fabular construction of meaning, arguing that it is precisely the impossibility of applying a human moral analysis to the actions of fabular beasts that enables the fable form to focus so powerfully on *action* rather than *ethical choice*, and so to present a moral that appeals much more to the mechanics of cause and effect rather than to any real sense of *morality* as such (pp. 32-33). This general fabular emphasis on cause and effect is transformed by Chaucer into a highly sophisticated presentation of the problem of necessitarianism.

³³¹ Bradwardine, *Insolubilia*, pp. 160-61. Another trope of such two-stage insolubles worth noting is the mutual curse, such as in Buridan, *Sophisms*, p. 221 (Chapter 8, Sophism 19). It is possible that Chaucer has such

If you say you are not an 'A', then you are one by the definition of the term, and vice versa. It could be argued that, in propositions such as 'Sortes dampnabitur' (discussed above), Holcot develops the problem by making God the speaker of the proposition. He reveals a 'truth' about the future which must still be contingent because it is dependent upon the response of the man receiving the revelation.

In the Nun's Priest's Tale, it is the narrator who takes the place of Holcot's God. As Pratt notes, whereas both the *Roman de Renart* and *Renart le Contrefait* have the fox enter the yard *before* Chauntecleer's dream, Chaucer elects to follow Marie de France's fable 'Del cok e del gupil' in only introducing the fox just before its encounter with Chauntecleer.³³² He thus leaves space for the narrator to 'forncast' the coming doom to the audience, adding nonchalantly that '*God woot that worldly joye is soone ago*' (see 3204-3206). Thus the narrator constructs the 'casus' in which the hero is forewarned of a coming terror, and then transfers the problem onto the audience by forewarning them directly too.³³³ However, the narrator has already proved his unreliability in forecasting the development of the tale in his announcement that the tale will be about the widow. His revelations (to both protagonist and audience) about what will happen later in his own narrative are thus overtly dubitable and, as it were, contingent – this is even more clearly the case when it is remembered that the Nun's Priest is, within Chaucer's framing narrative, delivering his tale *orally* and without a script.

In this way it could be argued that Holcot's God, who deceives through revelation, is matched by the narrator of the Nun's Priest's Tale, who allows his creatures a detailed discussion of the contingency of the future of the narrative, whilst using a cataphoric intervention to shape that narrative to the conclusion he desires, just like Holcot's God.

reflective cursing in mind when he has Chauntecleer declare to Daun Russell, 'I shrewe us bothe two. / And first I shrewe myself' (3426-27).

³³² Pratt, 'French Sources I', p. 433.

³³³ Travis argues that it is the audience who are in the place of God in the tale; but his analysis states the problem as one of interpretation, rather than one of revelation. For Travis, the audience has a quasi-divine ability to interpret the dream correctly. As I read the tale, however, the audience are the *receivers* of revelation; the narrator is the revealer. See Travis, *Disseminal Chaucer*, pp. 317-18.

However, if Chauntecleer can be seen as a naïve follower of Bradwardine, then so too can the Nun's Priest. After all, as Jill Mann notes in passing, 'the cock was frequently interpreted as a symbol of the preacher or priest in the Middle Ages'.³³⁴ If the 'lord' referred to in the concluding prayer of the tale is indeed Bradwardine himself, then the point seems to be to associate the Nun's Priest with the determinist position, or rather with a simplistic parody of that determinist position. Unaware that the Nun's Priest's prayer might specifically recall Bradwardine's theology of prayer, R. T. Lenaghan calls the benediction 'the first straightforward lines of the tale' in which 'the sophisticated fabulist is gone and his irony and indirection with him'.³³⁵ If my reading of these lines is correct, then the lines are *full* of Chaucerian irony. It seems that the Nun's Priest, like his rooster protagonist, is ostensibly a sincere determinist. However, just as Chauntecleer's belief in determinism leads him to choose a course of action that supports Holcot's 'semi-Pelagian' thesis, so the Nun's Priest tries to tell (and thinks he has told) a Bradwardinian tale, but has actually (as Chaucer intended) demonstrated the horrible paradox at the heart of a determinist theology. I agree with Travis that, 'rather than providing adequate answers to [...] vexing [logical] questions [...] Chaucer's fable instead simply advertises itself as an *insolubium* writ large – a self-referential parody instantiating a series of paradoxes'.³³⁶ Nevertheless, a pattern is emerging that suggests that Chaucer's interest in logical problems has a particular bent and focus. The logical problems surrounding the Liar paradox and the related insolubles of future contingency become the catalyst for a 'thought-experiment' in the foreknowledge and future contingency controversy, since they advertise the unreliability of the God-like narrator. By positing the 'cas' as he does, the Nun's Priest, a deceitful divine, unwittingly demonstrates Holcot's 'divine deceit'.

³³⁴ Mann, *From Aesop to Reynard*, p. 253.

³³⁵ Lenaghan, 'Nun's Priest's Fable', p. 307.

³³⁶ Travis, *Disseminial Chaucer*, p. 312.

CHAPTER 2:

LOGIC AND DETERMINISM IN *TROILUS AND CRISEYDE*

‘Termes of Phisik’

I have described the Nun’s Priest’s Tale as a kind of logico-theological ‘thought-experiment’. The term ‘thought-experiment’ is, however, more commonly associated in the modern history of science with the logico-*physical* concerns of fourteenth-century scholars, and especially of the Oxford Calculators. It is part of the contention of this thesis that theological, semantic and physical problems should be seen as vitally connected under the sophismatic method both in the work of logicians themselves and in the influence they exerted upon the literature of the time. I will now, therefore, trace the significance of ‘physical’ logic in Chaucer’s work in relation to the broader semantic and theological concerns that I have discussed above.

It is not ‘wys’, Pandarus tells Troilus, to write of love with ‘argumentes tough’ (II. 1025), or to jumble up discordant things together as, for example, ‘to usen termes of phisik / In loves termes’ (II. 1038-39). According to both the *Riverside Chaucer* and Barry Windeatt, ‘phisik’ means simply ‘medicine’; and it is easily understandable why both editions seem so sure of the term’s meaning in this context.³³⁷ There is a highly conventional and well-known tradition of the medical metaphor of love in late-medieval literature: the sick, indeed dying lover, pining for the one, unattainable cure that could heal his ills. Hearing ‘phisik’ in the same breath as ‘love’, the meaning of the term seems self-evident. Yet if ‘termes of phisik’

³³⁷ Chaucer, *Troilus and Criseyde: A New Edition*, p. 205.

merely suggests the use of conventional medical love imagery, then that very conventionality itself poses a problem. Far from Pandarus teaching Troilus how to write a conventionally acceptable love letter, he must, if these glosses are correct, be doing just the opposite, dismissing an otherwise unquestioned staple of love poetry as ‘discordant’ (II. 1037). Even if this is the case, Troilus would then seem to act out of character by ignoring his friend’s advice and following the convention of using medical imagery in his love letter anyway, invoking his own death (II. 1075), and calling Criseyde ‘his sorwes leche’ (II. 1066). It is possible that Chaucer merely means to draw attention to Pandarus’s ineptitude in matters of love, but the whole reading of the passage feels somewhat forced.

The meaning of the phrase in question more probably hangs on the word ‘termes’, a word derived ‘from the scholastic Latin terminus’, and which Chaucer uses time and again to denote what David Burnley called ‘the special forms and expressions of language which are associated with technical discussion’.³³⁸ It would not, of course, be conventional to insert technical ‘termes’ into a love letter, so Pandarus’s advice is sound. Troilus’s use of the word ‘leche’ certainly does not constitute such a technical ‘terme’, so it seems that he does follow Pandarus’s advice after all.³³⁹ The problem is that if Pandarus is *not* in fact commenting upon the conventional practice of invoking medical imagery in the discourse of love, then the argument from the same literary convention that ‘phisik’ must mean ‘medicine’ is rendered much less powerful.

‘Phisik’ need not have any connection with medicine here. It can denote, just as securely, the more general idea of ‘natural science’, and so function as a very loose equivalent of our modern term ‘physics’. In the fourteenth century, the term is inseparable from the logical speculation about natural processes through which logicians such as the

³³⁸ Burnley, ‘Chaucer’s “Termes”’, p. 55; Burnley, *Guide to Chaucer’s Language*, p. 156.

³³⁹ Or at least, ‘leche’ does not quite constitute a technical ‘terme’ of *medicine*: rather Burnley argues that it is exactly such conventional language that constitutes the register of the literature of love, or what Pandarus calls ‘loves termes’ (‘Chaucer’s “Termes”’, p. 57).

Oxford Calculators investigated the universe ‘secundum imaginationem’.³⁴⁰ In this connection too, ‘phisik’ may denote more specifically Aristotle’s own work on many of the logico-physical and mechanical problems that the ‘Merton men’ and others were busy debating and rethinking. It is in this sense that Chaucer uses the word in his translation of Boethius: “Myn Aristotle,” quod she, “in the book of his Phisic diffynysseth this thing by schort resoun, and nyghe to the sothe” (*Boece*, VI. pr. 1, 62-64).³⁴¹ Thus Burnley, who has conducted a substantial study of Chaucer’s use of technical ‘termes’, glosses ‘phisik’ not as ‘medicine’ but as ‘natural science’. He goes on to discuss Chaucer’s use of a range of logical and mathematical technical ‘termes’ in *Troilus and Criseyde*.³⁴² In fact, in a touch of typical Chaucerian irony, even as Pandarus is urging Troilus to avoid such ‘termes’, he makes use of two of the *termini technici* of natural science: ‘matere’ and ‘forme’ (II. 1039-40).

What Burnley misses, however, is the fact that, in relation to fourteenth-century logical discourse, ‘termes’ is itself a technical ‘terme’: it denotes the categorematic words or phrases that make up the subject and predicate of a logical proposition. Thus Strode himself, for example, in his *Tractatus de consequentiis*, considers the ‘terme’ (‘terminus’) ‘homo et asinus’ (‘man-and-ass’).³⁴³ The use of ‘terminus’ in this technical sense is standard in late-medieval logic. Buridan, for example, discusses ‘the term chimera’ (‘iste terminus

³⁴⁰ Heytesbury’s phrase: see Wilson, *Heytesbury*, p. 25. See also MED, ‘phisike’ (n) 2.

³⁴¹ The ‘thing’ in question is chance, or ‘hap’, and the Aristotelian discussion concerns the problem of changes taking place either by chance or apparently spontaneously. See, *Physics*, II, 197b-198a, trans. by Hardie and Gaye, pp. 337-338. Such causation problems form only a portion of Aristotle’s wider discussion of the processes of change and a whole range of difficulties and seeming contradictions that change logically implies, which spawned a range of late-medieval *sophismata*, some of which I will discuss in their fourteenth-century incarnations below. In his translation of the Boethian discussion of chance and spontaneity, Chaucer makes use of a proverb of causation that also makes a rather prominent appearance, albeit in a slightly revised form, in *Troilus and Criseyde*: ‘no thing hath his beyng of naught’ (*Boece*, V. pr. 1, 43; see also *Troilus* II. 798: ‘That erst was nothing, into nougth it torneth.’).

³⁴² Burnley, *Guide to Chaucer’s Language*, pp. 157-66. He doesn’t, however, comment upon either of the phrases ‘cause causyng’ or ‘dulcarnoun’ (see below). See also Burnley, ‘Chaucer’s “Termes”’, p. 55. Here Burnley also briefly discusses the recurrence of theological ‘termes’ connected to ‘grace’ and ‘despeir’ in *Troilus and Criseyde* too (pp. 65-66): see below for my discussion of the importance of theological ‘despeir’ in the poem.

³⁴³ Strode, *Tractatus de Consequentiis*, p. 37; translation, p. 184 (section 1.3.07).

“chimaera”) in his *Summulae de dialectica*.³⁴⁴ Speaking precisely, the ‘termes’ of natural science, or ‘phisik’, are not merely the technical words and phrase of logical discourse (such as ‘forme’ and ‘mater’) but also the whole set of ‘images’ (or ‘tropes’) employed as examples in the *sophismata*, such as ‘ass’ or ‘chimera’.³⁴⁵ Such an understanding of the phrase ‘termes of phisik’ may also explain Pandarus’s analogy for the sort of linguistic discord he is discouraging: a hybrid with a fish’s body, an ass’s feet and an ape’s head – in other words, a sort of chimera, which served as the almost ubiquitous example (or ‘terme’) of logical confusion and impossibility in the late-medieval *sophismata*.³⁴⁶

It is, therefore, probable that Pandarus’s ‘termes of phisik’ refers to the language and examples of the *sophismata physicalia* of the fourteenth-century logicians, especially as such a reading fits rather better with his reference to ‘argumentes tough’ than does the simplistic gloss, ‘medicine’. I hope to show that Chaucer’s interest in this kind of ‘phisik’ forms part of a logico-philosophical scheme based on the problematics of physical, and ultimately emotional, change that runs throughout the narrative. The irony of Pandarus’s advice to Troilus will thus be shown to be supreme: for although the inept lover Troilus follows his friend’s advice, the mischievous author refuses to, instead carefully constructing a narrative that delights in using ‘termes of phisik / In loves termes’.³⁴⁷

³⁴⁴ Buridan, *Summulae de dialectica*, 4 .1. 1; for an edition of this section of the *Summulae*, see *Summulae de suppositionibus*, p. 8 (Buridan, *Summulae de dialectica*, trans. by Klima, p. 222).

³⁴⁵ See the Introduction for a discussion of the breadth of what may be called the ‘semantic field’ of late-medieval logic, and see Appendix 2 for a list of examples of such sophismatic ‘termes’.

³⁴⁶ An example from Buridan is discussed above, in relation to the Summoner’s Tale. Further examples are: Bradwardine, *De causa Dei*, p. 204; Heytesbury, *Sophismata* (Sophism 1, p. 26, fols 77^{va}-81^{ra} (fol. 81^{ra})); ‘Roger Swyneshed’s *Obligaciones*’; Strode, ‘Insolubles’, pp. 204-205; Holcot, *Seeing the Future*, p. 67 (Quodlibet III, Q1, A3).

³⁴⁷ In a similar vein, Burnley notes Chaucer’s ‘literary manoeuvre’ of making ‘his Franklin deny knowledge of rhetoric in the technical language of that skill, then follow this statement by a declaration that he “kan no termes of astrologye” (F 1266) and a *tour de force* of these very *termes*’: *Guide to Chaucer’s Language*, p. 177.

The Frenzy to Measure

Fourteenth-century logicians extended the physical problems of Aristotle and their own medieval predecessors in a number of significant directions, but perhaps most notable was their zeal somehow to quantify or to ‘pin down’ processes of continuous change: for instance, by finding a mean value, or by identifying the ‘limits’ of the process. John Murdoch describes their approach as ‘the near frenzy to measure everything imaginable’.³⁴⁸ Edith Sylla provides a compact appraisal of the innovative and audacious nature of the enterprise:

According to Aristotelian theory, quantities and qualities belong to separate categories. One might suppose, therefore, that Aristotelian theorists would not attempt to quantify qualities. During the later Middle Ages, however, theorists who were basically Aristotelian in their approaches did attempt to quantify qualities.³⁴⁹

I will discuss certain particular approaches in more detail below, but I would first like to illustrate the extraordinarily imaginative range of ‘quantities’ and ‘qualities’ that fourteenth-century logicians theorised about, and provide a few examples of the sometimes bizarre thought-experiments that they invented to test their logical hypotheses.

A passage from William Heytesbury demonstrates only a small part of the wide range of ‘quantities’ and ‘qualities’ that make their appearance in the fourteenth-century *sophismata* of change:

Unde si Sortes erit major quam est (erit *ed.*) Plato aut melior vel albior seu calidior vel frigidior, sanior aut velocior, et jam non sit ipse maior quam est (erit *ed.*) Plato aut melior et cetera, igitur ipse incipit vel aliquando incipiet esse maior quam est Plato aut melior et sic de aliis.

(Whether, if Socrates *will* be bigger than Plato, or better or whiter or hotter, or colder, or healthier, or faster, and now he is not bigger than Plato, or faster and so on, therefore he [Socrates] *begins*, or at some point will begin, to be bigger than Plato, or better and so on.)³⁵⁰

³⁴⁸ Murdoch, ‘Social into Intellectual’, p. 287.

³⁴⁹ Sylla, ‘Medieval Quantification’, p. 9.

³⁵⁰ Murdoch, ‘Propositional Analysis’, pp. 143-44; citing Heytesbury, *Regule solvendi sophismata* (1494 edition), fol. 24^v.

Bigger, better, whiter, hotter, colder, healthier or faster: size, goodness, colour, temperature, health and speed all varying over time – the list is dizzying! Some of the cases posited by logicians, their thought-experiments, are remarkably vivid. Heytesbury, for example, imagines

that, at the start of a certain hour, Socrates' face is partly white and partly black; that during the hour the black area condenses to zero quantity while the white part expands so as to occupy the whole face; and that the whiteness of the white part meantime decreases continuously in intensity. If at the end of the hour the whiteness is still of an intensity greater than the medium degree in the latitude of whiteness, it follows that Socrates will become white, although the whiteness that he possesses continuously decreases in intensity.³⁵¹

The choice of a man's face as the subject of colour change is striking, since it is physiognomic shorthand for emotional change, as we see countless times in *Troilus and Criseyde*: for example, the passage:

'Nay, nay,' quod she, and *wex as red as rose*.
With that he gan hire humbly to saluwe
With dredful chere, and *oft his hewes muwe*[.] (II. 1256-58)

A change of face is also a common metaphor for a treacherous change of personality or behaviour, as far back as the Greek 'hypocrite' right through to our own term 'two-faced'.

The physical examples of change in the *sophismata* suggest inner changes too.

In fact, as the first passage from Heytesbury shows, the same sophismatic approach was also applied to internal 'qualities'. The desire somehow to quantify health, for instance, may add interesting nuances to the conventional 'love-sickness' of Troilus. Pain is, perhaps, a still more abstract and intractable concept, yet Nicole Oresme, developing a geometric approach, writes in Chapter 39 of his 'Tractatus de configurationibus':

let *A* and *B* be two pains, with *A* being twice as intensive as *B* and half as extensive. Then they will be equal simply... although pain *A* is worse than, or more to be shunned, than pain *B*. For it is more tolerable to be in less pain for two days than in great pain for one day. But these two equal and uniform pains when mutually compared are

³⁵¹ Wilson, *Heytesbury*, p. 23. The sophism referred to is Heytesbury, *Sophismata* (Sophism 5, pp. 20-21, fols 91^{rb}-97^{ra} (fol. 93^{rb})).

differently figured, ... so that if pain *A* is assimilated to a square, then pain *B* will be assimilated to a rectangle whose longer side will denote extension, and the rectangle and square will be equal.³⁵²

Some of the Merton men, and their contemporaries, even attempted to quantify moral concepts. Oresme, for instance, applied his geometric approach to similar problems involving 'joy'.³⁵³ Glending Olson reminds us of two other qualities studied and quantified by the fourteenth-century logicians:

The calculators and the people they influenced applied various 'measure languages' (analytical terminology used to discuss such subjects as proportion, infinity and continuity, and local motion) not only to problems in logic and natural science, but also to philosophical and theological questions. For example, the mathematical distinction between the infinite and the finite was applied to the theological issue of distinguishing the love due God from that due one's fellow creatures, and as a means of demonstrating how there could be variation within species and yet incommensurability between species. The language of intension and remission of forms (acceleration/deceleration, or increase/decrease in qualities such as heat) was used to analyze questions of the movement of the will.³⁵⁴

Variation in love and the movement of the will are of course issues of crucial importance in *Troilus and Criseyde*; and for Chaucer, as for the authors of the *physicalia*, the language of temperature variation provided an extremely effective analogy, and one that deserves rather more detailed scrutiny.

The Heat of Love

Although it is not at all surprising to find Chaucer using heat as a conventional metaphor for the intensity of love throughout the poem, certain occurrences of the trope are formulated in such a way as to draw attention to the natural processes of change, of which temperature serves as an example. Take, for instance, Pandarus's consolatory prediction to Troilus that, 'Swich fir, by proces, shal of kynde colde' (IV. 418). 'Proces' is a term of some interest here. Although this line, with its fire metaphor, finds no original in the corresponding passage of *Il*

³⁵² Taken from Grant, *God and Reason*, p. 172.

³⁵³ Grant, *God and Reason*, p. 172.

³⁵⁴ Olson, 'Measuring the Immeasurable', pp. 414-15.

Filostrato, it is possible that the word ‘proces’ may, in part, refer to Boccaccio’s ‘processo di tempo’ in a later passage spoken by Troiolo.³⁵⁵ However, this is also a term that was often applied to the structural development of quasi-logical argument: as for instance, in Book II’s ‘paynted proces’ (424), where Criseyde is lamenting Pandarus’s specious and overly rhetorical (‘paynted’) analysis of her ‘cas’ (II. 422 – itself a term with connotations of logical argument).³⁵⁶ Thus, the phrase, ‘by proces’, may refer to the progression of time, or the natural (‘of kynde’) change taking place when fire grows cold; or it may be seeking to justify Pandarus’s assertion of the *necessity* of such natural change by an appeal to logical argument. One might now say, *if you think about it logically* (‘by proces’), hot things must naturally decrease in temperature.

Far from being mere truism, Pandarus’s statement recalls the problems of intension and extension by which the Oxford Calculators made perhaps their most famous theoretical scientific breakthroughs, concerning the ability to quantify phenomena of varying intensity in terms of a ‘mean’. The famous ‘Mean Speed Theorem’ (that a body subject to uniform acceleration will travel the same distance over a period of time as a body travelling constantly at its mean speed) is probably the best example of such an approach. The same method can be followed when attempting to quantify, for example, the overall temperature of a body whose heat varies across its area: as John Murdoch summarises it, according to this algorithm, ‘a subject that varies uniformly in heat from zero degrees at one extreme to 8 degrees at the other is “just as hot” as if it were uniformly hot in degree 4 throughout’.³⁵⁷

³⁵⁵ Boccaccio, *The Filostrato*, IV. 59.

³⁵⁶ See also II. 1615: both passages refer to Pandarus’s sophisticated persuasions. As J. A. W. Bennett points out in his brief discussion of sophisticated reasoning in Chaucer, it is Pandarus ‘who can “so wel and *formaly* arguwe”’ (IV. 497): *Chaucer at Oxford*, pp. 82-83 (my emphasis).

³⁵⁷ Murdoch, ‘Social into Intellectual’, p. 318 (note 45). Such reasoning may seem obvious to a modern reader: but, stripped of many of the assumptions we take for granted in modern science, these developments in medieval thought are highly impressive. It is by no means self-evident that such a quality as ‘hotness’ should be measurable and even able to be mathematically manipulated in this way.

Such concerns developed from the problem of intensity and quantity of heat earlier expressed more simply in terms of basic experimental phenomena:

Scotus's 'faithful student' Joannes de Bassolis adopted the concept of intension by degree to degree addition. He repeats and answers an old argument brought up against part to part addition, namely that if we add tepid water to tepid water both at the same degree of heat, the resulting mixture is not hotter. This, Joannes answers, is because we are adding subject to subject and getting an increase in the quantity of mass, but if we could put the two quantities of heat in the same subject, so that there would be no extensive increase of the quality in the subject, then we would get an increase in intensity.³⁵⁸

By the early fourteenth century, at latest, treatment of the problem had developed in both sophistication and imagination:

Omnis forma inherens recipit intensionem et remissionem: propter quod intelligitur tanquam exposita in linea que dicitur linea intensionis et remissionis. Et quia omnis forma inherens habet contrarium et medium, erit eadem linea intellectualis continens formas contrarias. Puta calor in quocunque loco dicte linee ponatur. Per intellectum intelligitur posse intendi supra illum punctum et similiter remitti donec venerit ad primum punctum medii inter calorem et algorem; ipsum quoque medium quia longitudinem habere intelligitur remitti potest sive per aliam considerationem intendi, donec venerit ad punctum eque distantem a contrariis. Et similiter intelligitur quod medium per intensionem recedit a puncto medio donec pervenerit ad primum punctum contrarii, et contrarium intelligitur posse intendi donec perveniat ad quemcunque punctum intensionis.

(Every inherent form receives intension and remission, on account of which it becomes understandable when set forth as a line that is called the line of intension and remission. And since every inherent form has a contrary and a mean, that same line will be imagined containing contrary forms. Suppose a hotness is placed in any place whatever on the aforesaid line. Through the intellect it is understood that it may be increased above that point and similarly be remitted until it comes to the first point of the mean between hot and cold; that very same mean, since it is understood to have longitude, can be remitted or, by another consideration, be increased until it comes to a point equidistant from the contraries. And similarly it is understood that the mean, through intension, recedes from the middle point until it comes to the first

³⁵⁸ Clagett, 'Richard Swineshead', p. 137; citing John of Bassols, *In quatuor Sententiarum libros*, Book I, Dist. XVII, quaest. 2.

point of the contrary, and the contrary is understood to be able to be increased until it comes to whatever point you wish of intension.)³⁵⁹

In other words, the temperature of an object can be conceived in terms of a unilinear scale with extremes and a middle point; and in terms of that scale the temperature resulting from a mixture can be calculated:

Exempli gratia, detur aqua duo librarum calida in 6^o gradu lineae sumpto in respectu alicuius puncti in eadem linea contenti; detur etiam alia aqua unius libere calida in 12^o gradu respectu eiusdem puncti; facta commixtione istarum aquarum, caliditas commixti erit elevata in linea intensionis per 8 gradus respectu predicti puncti, quia distantia que est inter 6 et 8 est subdupla ad distantiam que est inter 8 et 12, sicut aqua unius libere est subdupla ad aquam duarum librarum.

(For example, let there be given water of two weights hot in the sixth degree, in respect to some point contained in the same line; let there be given again another water of one weight hot in the twelfth degree with respect to the same point; a mixture of the two waters having been made, the hotness of the mixture will be raised in a line of intension through eight degrees, with respect to the aforesaid point, since the distance that is between six and eight is one-half the distance that is between eight and twelve, just as the water of one weight is half the water of two weights.)³⁶⁰

By the mid-fourteenth century, logicians were devising *sophismata* involving problems *infinitely* more complex:³⁶¹ Richard Swineshead, for example, imagined

a given subject [...] hot in degree 1 over its first half, in degree 2 over its next quarter, in degree 3 over its next eighth, in degree 4 over its next sixteenth, and so on in infinitum. As a whole, the subject is hot in degree 2. That is, it is finitely hot as a whole even though the heat throughout it increases infinitely.³⁶²

³⁵⁹ *De graduatione medicinarum compositarum*, quoted in Marshall Clagett, *Science of Mechanics*, pp. 334-35: a text attributed to Roger Bacon but which Clagett regards more probably as an early fourteenth-century text; the translation is the unpublished one of Thomas Smith, given by Clagett.

³⁶⁰ Clagett, *Science of Mechanics*, pp. 334-35.

³⁶¹ As Murdoch notes, Swineshead explicitly refers to the example following as a sophism, although his treatment of it is 'distinctively mathematical': Murdoch, 'Infinity and Continuity', pp. 588-90.

³⁶² Murdoch, 'Infinity and Continuity', pp. 588-89. As Murdoch explains, although anachronistic, the easiest way for a modern reader to grasp why the subject is hot in degree 2 is in terms of the infinite series ' $1/2 + 2/4 + 3/8 + 4/16 + \dots + n/2^n$ ', which converges on 2.

In the context of the ongoing development of this approach,³⁶³ Chaucer's treatment of one of the conventional paradoxes of love in his description of Criseyde is striking: 'Now hoot, now cold; but thus, bitwixen tweye, / She rist her up, and went hire for to pleye' (II. 811-12). The notes in the *Riverside Chaucer* helpfully compare this couplet to a couplet from the *Romaunt of the Rose*: 'Thou shalt no whyle be in o stat, / But whylom cold and whilom hat' (B. 2397-98). The second, more conventional, example of the trope ignores, indeed derives its power from ignoring, the problem of a body both hot and cold, or quickly switching from one to other, as a mysterious phenomenon accompanying the experience of love. In Criseyde's case, however, the paradox is definitely *resolved*, by understanding her contrasting emotions as contraries on a line of intension and remission and assigning her a mean temperature 'bitwixen tweye'.

Perhaps another example of how Chaucer hints at the application of a more rigorous quantification of the heat of love throughout the narrative comes with Troilus's exclamation to Pandarus in Book III:

I hadde it nevere half so hote as now;
 And ay the more that desir me biteth
 To love hire best, the more it me deliteth.
 [//]
 I not myself naught wisly what it is,
 But now I feele a newe qualitee –
 Yee, al another than I dide er this. (III.1650-55)

'Half so hote' may, of course, be read purely idiomatically. It may also be read quantitatively, and it is noteworthy, therefore, that Chaucer adapts Boccaccio's 'Io ardo più che mai' ('I burn more than ever') in the way that he does.³⁶⁴ It is possible that Chaucer's phrasing was prompted by Boccaccio's use of the word 'qualitate' in the next line, which Chaucer translates literally with the word 'qualitee' four lines later. In English, however, the term,

³⁶³ For the matter did not rest there: first Swineshead, then Oresme, began to adapt the idea to a two-dimensional system that would ultimately lead to the analytic geometry of the seventeenth century: see Clagett, *Science of Mechanics*, pp. 331-46.

³⁶⁴ Boccaccio, *The Filostrato*, III. 62 (pp. 266-67).

with its basic Aristotelian meaning, seems a little out of place in a purely emotional account of the passage. Troilus seems to be mixing love and Physics again. At first he attempts to quantify his love (or heat) for Criseyde in terms of previous experiences ('I hadde it nevere half so hote'), as if his emotions, like Criseyde's, could be understood in terms of a linear scale of intension and remission. However, he soon feels forced to alter his analogy: his 'heat' for Criseyde is not merely the intension of a feeling that he already had; rather it is a 'newe qualitee' entirely, utterly distinct from anything that has gone before.

Heat is used as a paradoxical image of love throughout *Troilus and Criseyde*, although it must be conceded that in many cases the image is used utterly conventionally. Sometimes Chaucer's choice of the image is unmistakably due to its presence in the corresponding passage of his source. However, Chaucer may often be said to intensify the problematic nature of temperature in his treatment of the image. Compare, for example, the last line of Petrarch's Sonnet 132 with that of the corresponding *Canticus Troili*: 'et tremo a mezza state, ardendo il verno' ('and I shiver in mid-summer, burn in winter') may be said to contain the germ of the heat paradox, although rather connotatively than precisely.³⁶⁵ Chaucer's 'For hote of cold, for cold of hote, I dye' (l. 420) foregrounds much more clearly the problem of a body subject to different temperatures simultaneously. Barry Windeatt also draws attention to line 5 of Petrarch's Rima 182: 'Trem'al più caldo, ard'al più freddo cielo' ('I tremble under the hottest sky, burn under the coldest').³⁶⁶ Although closer to Chaucer's version, in that heat and cold are explicitly named, Petrarch's line is still less pointedly paradoxical, lacking the central chiasmic node that forces the two contraries together in Chaucer's line ('for hote of cold, for cold of hote').

Another example of the heat image in *Troilus and Criseyde* has been interpreted by Christopher Brookhouse as an example of the persistent use of the *rhetorical* device of

³⁶⁵ Both text and translation are taken from *Petrarch's Lyric Poems*, pp. 270-271.

³⁶⁶ *Petrarch's Lyric Poems*, pp. 328-29.

impossibilium, or what should perhaps more precisely be called *adynaton*, in the poem:³⁶⁷
 ‘God woot, refreyden may this hote fare / Er Calkas sende Troilus Criseyde’ (v. 507). The fact that Chaucer employs such a device on a number of occasions throughout the poem is certainly important, and contributes to a general understanding of the *Troilus* as a *problem-text*. However, it is an important qualification, as Susan Schibanoff points out, that although ‘earlier [classical] rhetoricians discuss the device [of *impossibilium*] in their treatises; medieval ones rarely mention it.’ Indeed, ‘when medieval rhetoricians do discuss “impossibility,” they classify it as a method of refutation, not as an ornament of poetry’.³⁶⁸

Similarly, I think a *rhetorical* reading of this particular example needs to be adjusted for three reasons. Firstly, to be effective, examples of rhetorical *adynaton* must be obviously and immediately impossible: Criseyde’s earlier description of a river flowing uphill back to its own source (iv. 1548-53) is a much more plausible example: no real analysis is needed to ascertain the impossibility – it is self-evident. Why the idea of something hot cooling down should be treated as a *prima facie* impossibility is, however, unclear; and because of that, the phrase cannot function powerfully, if at all, as an example of rhetorical *adynaton*.

Secondly, a comparison with the corresponding passage from Boccaccio reveals that in Chaucer’s source the phrase is clearly not intended so much to convey the impossibility of Criseyde’s return as the change a prolonged period of separation might effect on Troilus:

Questa tua voglia sì focosa e fiera
 Si potrà reffreddar, s’el non mi mente
 Ciò ch’io udii infin quand’ella c’era;
 Ed il decimo giorno, e’l mese e l’anno,
 Pria la rivegghi, credo passeranno.

(This wish of thine, so fierce and fiery, may be cooled, if I be not deceived by what I heard even when she was here. I believe that the

³⁶⁷ Brookhouse, ‘Chaucer’s “Impossibilia”’, p. 42. Given the possible confusion of the rhetorical and logical applications of this term, it is worthwhile noting that Brookhouse makes no comment upon the latter.

³⁶⁸ Schibanoff, ‘Criseyde’s “Impossible” Aubes’, pp. 330-31.

tenth day and the month and the year will pass before thou dost see
her again.)³⁶⁹

Given that Chaucer's phrase is a highly literal translation of his source passage ('refreyden', for instance, translating 'reffreddar'), it seems likely that it was designed to serve a similar function as its original: that is, to convey Pandarus's suggestion that Troilus's heat of love might cool over a lengthy passage of time, as we suspect Criseyde is beginning to cool over a much shorter period of time.

Finally and most significantly, the idea of change over time fits much more closely with the logical problems surrounding change of state that have already been discussed elsewhere in the text than with the classical rhetorical understanding of *impossibilium*. The problem of a body whose state changes over time is exactly the problem of intension and extension, just as much as the case of a body one part of which is hot and another part cold, which I discussed earlier. The difference is merely that instead of the body's state varying across the extension of its area, the state varies across time. Even in a basic form with a discrete variable, this sort of problem could give rise to simple and elegant *sophismata*, such as Buridan's, 'I eat something raw', which is justified by the syllogism that since I saw something raw yesterday and what I saw yesterday I eat today, therefore I eat something raw.³⁷⁰ The problem, of course, concerns whether (and how) we can refer to an object that has been subject to a change of state as the same object. On the one hand, to refer to the object as identical is to risk the implication that it retains all its previous accidents. On the other hand, as Troilus himself earlier points out, 'folie is, whan man may chese, / For accident his substaunce ay to lese' (IV. 1504-505). It would be foolish to lose the ability to refer to an object at all simply because it has in some way changed.

It is highly significant in its own right that Chaucer chooses to adopt these technical terms of Aristotelian discourse (accident and substance), which were so important in late-

³⁶⁹ Boccaccio, *The Filostrato*, v. 49 (pp. 394-95).

³⁷⁰ Buridan, *Sophisms*, p. 119 (Chapter 4, Solution to Sophism 2).

medieval theology and logic. In fact, one early reader, glossing the line in BL MS Harley 2392, felt it worthwhile to give the same sentiments in Latin ('non est bonum perdere substantiam propter accidentes'). The same reader correctly identifies Chaucer's translation of the logical term 'causa causans' at line IV. 829 (see below), in addition to noting many of the other lines suggestive of similar logical concerns: for example, I. 637, I. 642, II. 1099, II. 1385, III. 931 and others.³⁷¹ It seems that the potential for the poem to be read more deeply in the light of late-medieval logical discourse was recognised early on.

The Indivisibilist

The problem of changing state over time becomes much more logically, and mathematically, challenging when one introduces the possibility of a continuous, rather than a discrete, variable, such as temperature.³⁷² One reason for this was that the idea of a continuum of infinite divisibility was not quite universally accepted. Glending Olson explains that the key question is:

Do continuous phenomena like lines, space, and time lack distinguishable constituents (thus being potentially infinitely divisible into smaller and smaller parts), or are they composed of a number of separate constituents, indivisibles, that cannot be further subdivided—points that constitute lines, intervals that constitute space, instants that constitute time? Medieval discussion of this topic in natural philosophy was based on Book VI of Aristotle's *Physics*, but the calculators extended Aristotle's thinking beyond space and time into qualities like heat and cold.³⁷³

That Chaucer was aware of at least one practical application of this question is implied by a passage in his *Treatise on the Astrolabe*. As Olson notes, 'Chaucer says when describing the markings of the astrolabe, the degrees of the zodiac are divided into "mynutes," the minutes

³⁷¹ See Benson and Windeatt, 'Manuscript Glosses', pp. 37-48.

³⁷² For a useful and compact survey of late-medieval issues involving continuity, see Murdoch, 'Infinity and Continuity', pp. 564-91.

³⁷³ Olson, 'Measuring the Immeasurable', pp. 416-17.

into “secundes, and so furth into smale fraccions infinite” (*Treatise on the Astrolabe*, I. 8.11–13).³⁷⁴

Despite the wide acceptance of Bradwardine’s *Tractatus de continuo*, one significant late fourteenth-century logical theorist still rejected infinitely divisible continua: John Wyclif was an indivisibilist, arguing for the existence of basic, indivisible instants, points or degrees that make up what we think of as continua. As Norman Kretzmann recognises, ‘One of the reasons Wyclif’s views on time and change take their unusual indivisibilist direction [...] is that they are formed in conscious, sometimes angry opposition to the Calculators’ techniques of logical analysis and the continuism on which they are based’.³⁷⁵ Still, ‘historically and philosophically it seems to be a very unlikely view for a philosopher to have adopted in the latter half of the fourteenth century’.³⁷⁶ Wyclif’s logical approach also influenced the theological outlook of his followers. Olson has demonstrated how an understanding of the controversy should inform our reading of the Summoner’s Tale:

Wyclif’s indivisibilist view of continua was adopted in a long vernacular Lollard sermon, where it is applied to human beings’ relationship to God. The anonymous author of the *Omnis plantacio* (written ca. 1410) discusses how contemporary sects within the church (monks, canons, friars) have ‘departid’ Christian unity. (That sweeping charge of the division of spiritual oneness, which both Lollards and their opponents hurled at each other, ultimately provides the broadest socio-religious context for the ‘departyng of the fart,’ as it is called in a rubric before *SumT*, III. 2243, in some manuscripts.)³⁷⁷

The question of whether human behaviour can be so neatly categorised and ‘departed’, or whether a character’s possible motivations and actions must be viewed more relatively, as occupying a notional place on an infinitely divisible continuum that allows for variability and fluid change – that is, the question of whether ‘goodness’ and ‘love’ are discrete or continuous variables – is perhaps *the* crucial question in *Troilus and Criseyde*.

³⁷⁴ Olson, ‘Measuring the Immeasurable’, p. 424 (note 9).

³⁷⁵ Kretzmann, ‘Continua, Indivisibles, and Change’, p. 52.

³⁷⁶ Kretzmann, ‘Continua, Indivisibles, and Change’, p. 34.

³⁷⁷ Olson, ‘Measuring the Immeasurable’, p. 418.

Troilus gives his own, indivisibilist answer in his discussion of the morality of Pandarus's dubious adoption of the role of, at best, 'go-between' to his own niece:

But he that gooth for gold or for richesse
On swich a message, calle hym what the list;
And this that thow doost, calle it gentillesse,
Compassioun, and felawship, and trist.
Depart it so, for wyde-wher is wist
How that ther is diversite requered
Bytwixen thynges like, as I have lered. (III. 400-406)

The question is not so much whether Pandarus is behaving purely altruistically, as it is whether Pandarus's actions are driven by material gain or by some less tangible incentive, such as emotional or social motivation. Troilus, although conceding the 'likeness' of Pandarus's action to 'bauderye' (III. 397), emphasises the need to make, and the possibility of making, a qualitative and objective distinction. That is to say, that although he recognises that the action varies in character as its motivation is intended or remitted (to use the scholastic terminology) along a notional line of the tangibility of its incentive, he asserts that the line is not an infinitely and arbitrarily divisible continuum, but instead a scale of objective and otherwise indivisible grades or degrees. In other words, he assumes that one can make a definite 'diversite' or distinction between the two motivations, so that the one does not run fluidly into the other. In order to emphasise Troilus's position, Chaucer adapts the scholastic maxim that 'diversitas requirit distinctionem' ('difference demands distinction').³⁷⁸

In the wider scheme of Wyclif's logic, his particular finitist brand of indivisibilism is necessitated by his insistent emphasis upon the omniscience of God concerning his creation. Norman Kretzmann summarises Wyclif's motivation for adopting this position:

God alone knows the detailed composition of things out of indivisibles, but in Wyclif's view that sort of knowledge necessarily includes knowing the precise number of the indivisible constituents of the world and of each thing in it. If there are literally infinitely many points in a line, then, it is logically impossible that anyone, even omniscient God himself, can know the number of its points. [...] [But]

³⁷⁸ *The Riverside Chaucer*, following Root, cites Aquinas ('Summa theologica 1-1.31.2'), but Bert Dillon refers instead to Duns Scotus ('Expositio in Metaph. Arist. 10.2.1.30'). See Dillon, *Chaucer Dictionary*, p. 85.

God made them; and omniscient God must know each of his creatures individually. As Wyclif puts it more than once, quoting or paraphrasing Genesis 1:31, ‘God sees all the things that he has made’.³⁷⁹

Thus, in Chaucer’s time, the controversy over indivisibilism is inextricably linked to the wider controversy over God’s absolute knowledge, and thus to the problems surrounding determinism.³⁸⁰ The two aspects of logic even share the same terms and examples, or what a literary reader might call the same *imagery*. Indeed, Wyclif uses the point at which ‘the application of fire in sufficient force to combustible material acts or begins to act’ as an example of what he calls ‘natural necessity’ (‘necessitas naturalis’).³⁸¹ Chaucer’s own use of tropes connected with the indivisibilist debate is therefore best understood in the context of his reaction to the controversy over determinism, especially in the famous soliloquy of Book IV.

Wyclif, Chaucer, Strode

It has been suggested that Troilus’s soliloquy draws on and parodies logical modes of thought and expression, both in substance and in style. Howard Patch noted that the passage is full of ‘the jargon of a self-conscious beginner in the study of logic’: for instance, the line ‘And ferthe-over now ayenward yit’, which Patch translates, ‘Beside, notwithstanding this point, however’.³⁸² The Boethian element of the soliloquy is also ground well-trodden by Howard Patch, John Huber, Frank Grady and others;³⁸³ but the introductory stanza of Troilus’s monologue (IV. 953-59) finds no parallel in the *Consolation* and requires explanation in other terms. Almost forty years ago, J. A. W. Bennett offered, very much in passing, a striking

³⁷⁹ Kretzmann, ‘Continua, Indivisibles, and Change’, p. 45.

³⁸⁰ See also Evans, *Language and Logic of the Bible*, esp. p. 134.

³⁸¹ Kenny, *Wyclif*, p. 32, translating from Wyclif, *Tractatus de Logica*, I, p. 158. The related problems concerning the precise moment at which an action *begins* and *ceases* (problems of ‘incipit et desinit’) are discussed below in relation to how Troilus and Criseyde fall in and out of love.

³⁸² Patch, ‘Troilus on Predestination’, p. 417, quoting *Troilus*, IV. 1027.

³⁸³ Patch, ‘Troilus on Predestination’; Huber, ‘Troilus’ Predestination Soliloquy’; Grady, ‘The Boethian Reader’.

hypothesis about the source of a single line from that stanza. That hypothesis, with its potential consequences for a nuanced understanding of Chaucer's involvement in the intellectual controversies of his time, has never quite received the attention that it deserves.

Bennett simply pointed out that Chaucer's 'al that comth, comth by necessitee' (IV. 958) bears a striking resemblance to a maxim of Wyclif's, which he quotes as '[nec] omnia que eveniunt de necessitate eveniunt'.³⁸⁴ In fact, it may be added that apart from '[nec]' the English constitutes a word for word translation of the Latin. Bennett appends no further comment himself, merely citing the relevant page number in Loserth's edition of Wyclif's *Opera Minora*.³⁸⁵ In the explanatory notes to this line, both the Riverside Chaucer and Barry Windeatt simply cite Bennett's quotation without further comment.³⁸⁶ There are two reasons why Bennett's observation has prompted relatively little discussion: firstly, Troilus appears to be arguing *for* necessity whereas Wyclif, as it would appear from Bennett's quotation, is arguing *against* it. Secondly, there is no *prima facie* reason to suppose that Chaucer would have been so familiar with this particular passage from Wyclif's prolific output as to justify any extended consideration of its relevance to *Troilus and Criseyde*.

Both assumptions are, as it turns out, false. Firstly, in the passage in question Wyclif is arguing in favour of a form of necessity and predestination, in answer to an objection concerning free will. Why Bennett quotes Wyclif's maxim as he does, supplying 'nec', is a mystery. It is certainly not because that is what Wyclif could be expected to write: the typical caricature of Wyclif's position on predestination both now and in his own time is necessitarianism, as I have discussed. However, the phrase in question was not, in fact, originally Wyclif's at all. Rather it is a quotation from Bradwardine's *De causa Dei*. As Oberman observes:

³⁸⁴ Bennett, *Chaucer at Oxford*, p. 64.

³⁸⁵ Wyclif, *Opera Minora*, p. 181.

³⁸⁶ *The Riverside Chaucer*, p. 1048; *Troilus and Criseyde*, ed. by Windeatt, p. 405.

One Bradwardinian proposition, namely that ‘omnia quae eveniunt eveniunt de necessitate’ may be found in Wiclif [...] and by this a very clear connection seems indicated. Wiclif ascribed this proposition to Bradwardine: ‘In primis suppono cum doctore secundo (i.e. Bradwardine) quod omnia quae eveniunt sit necessarium evenire’ [...] [...] Bradwardine does not propound this theory without further definition. For [...] he explicitly rejects as heretical the opinion that everything happens [sic] inevitably, for to him the ‘necessitas antecedens’ does not eliminate, but presupposes the free will.³⁸⁷

In fact, Bradwardine strongly rejects the proposition on the grounds that it even destroys God’s free will, the power of which it is Bradwardine’s purpose to defend: ‘quidem haeretici moliuntur destruere universaliter liberum arbitrium tam in Deo quam in creatura [...] dicentes quod omnia quae eveniunt de necessitate eveniunt’ (‘certain heretics universally try to destroy free will as much in God as in a creature [...] saying that everything comes about of necessity’).³⁸⁸ Bradwardine would also doubtless have been aware that almost the exact proposition in question had been censured first by the Bishop of Paris and then the Archbishop of Canterbury just over half a century earlier.³⁸⁹ James Weisheipl describes the question of ‘whether everything that happens, happens of necessity’ as ‘the *quaestio famosissima* of [Bradwardine’s] day’.³⁹⁰ Radically, however, Wyclif *accepts* the proposition, albeit with caveats. He thus seems, or at least seemed to his contemporaries, to push his theology and logic into a form of determinism previously considered unorthodox even by Bradwardine, the most renowned ‘anti-Pelagian’ of the previous generation.³⁹¹ Chaucer’s

³⁸⁷ Oberman, *Bradwardine*, pp. 202-203.

³⁸⁸ Bradwardine, *De causa Dei*, p. 637, quoted in Oberman, *Bradwardine*, pp. 202-203.

³⁸⁹ For more details, see the brief overview of the fourteenth-century controversy over determinism in the Introduction.

³⁹⁰ See Weisheipl, ‘Ockham and the Mertonians’, p. 656.

³⁹¹ This instance alone is powerful evidence for the argument for the need to study the cultural effects of fourteenth-century logic in terms of its precise manifestations in specific linguistic terms and propositions, rather than merely in terms of generalised thought structures, such as ‘nominalism’. James Weisheipl argues that Bradwardine was not properly a determinist (‘Ockham and the Mertonians’, p. 658). Anthony Kenny argues that Wyclif was no more of a determinist than Bradwardine (*Wyclif*, pp. 37-38). Yet there remains this difference: that whereas Bradwardine rejects this particular proposition, Wyclif finds a way of accepting it. Chaucer, as a literary man and (probably) as a man without formal training in philosophy, would primarily respond to the sort of language these thinkers used as the most direct means to grasping their outlooks on the world. That is, I would argue, he would have an *inductive* rather than a *deductive* approach to the philosophy of his time. Too many of the modern literary critical attempts to establish Chaucer’s alleged ‘nominalism’, or whatever, work the other way around.

phrase, ‘al that comth, comth by necessitee’, is therefore much more likely to be drawn from Wyclif than from Bradwardine, parodying the later thinker’s acceptance of a proposition previously rejected by the earlier.

Bennett also failed to make clear that the Wyclif passage in question appears in the ‘Responsiones ad argumenta Radulfi Strode’, the second in a series of two or three controversial correspondences between Wyclif and Chaucer’s friend, the dedicatee of the *Troilus*, ‘philosophical Strode’ (v. 1857).³⁹² According to Williel Thomson, the series of correspondence between the two old university friends, which he calls ‘the most sustained intellectual discourse of Wyclif’s career’, took place between late 1378 and 1384:³⁹³ that is, during or just before the probable period of Chaucer’s composition of the *Troilus*.³⁹⁴ In his article, ‘Chaucer and Strode’, Rodney Delasanta has effectively concluded the debate on whether the London and Oxford Strodes are identical, and it would require striking new evidence to alter, in the balance of probabilities, the scholarly opinion that Chaucer’s lawyer friend in London and the distinguished Oxford logician were one and the same Strode. Furthermore, that Chaucer knew, or was beginning to make the acquaintance of Ralph Strode in London during the period of Wyclif’s correspondence with him is attested by the fact that in 1381 the two went

bail together in the complicated case of John Hend, one not unlike that involving Wycliffe and Strode with Beneger seven years before. Again, it is axiomatic that friendship preceded the mainprise because it is inconceivable that strangers would go to bail together.³⁹⁵

³⁹² The three texts in question are as follows: ‘Responsio ad decem questiones magistri Ricardi Strode’, pp. 398-404; ‘Responsiones ad argumenta Radulfi Strode’, in *Opera Minora*, pp. 175-200; ‘Responsiones ad argumenta cuiusdam emuli veritati’, in *Opera Minora*, pp. 258-312. Rodney Delasanta only seems to acknowledge the first two of these texts as being addressed to Strode: ‘Chaucer and Strode’, p. 208. Williel Thomson acknowledges all three and adds a fourth: a brief, non-controversial letter, ‘Litera ad quendam Socium’, in Wyclif, *Opera Minora*, pp. 10-11. See Thomson, *Latin Writings*, pp. 234-39.

³⁹³ Thomson, *Latin Writings*, p. 227 and pp. 234-39. It is also possible that these letters had unhappy consequences for Wyclif, perhaps being used as evidence of his Eucharistic heterodoxy by William Woodford in 1382. See Catto, ‘Wyclif and Wycliffism’, p. 218.

³⁹⁴ *The Riverside Chaucer*, p. 1020, gives a brief but useful summary of critical opinion on the date of the poem’s composition, ranging between 1378 to 1387.

³⁹⁵ Delasanta, ‘Chaucer and Strode’, p. 210.

Four or at the very most six years later, Chaucer was friendly enough with Strode to dedicate the *Troilus* to him. It is also important to note that, although Chaucer would initially have known Strode in a professional capacity as the Common Pleader for London, the dedication is made to him as a philosopher, rather than as a lawyer or merely a friend, suggesting Chaucer's first-hand familiarity with Strode as a man involved with quasi-scholastic altercations even after he had moved to London. Given that we know of no other 'philosophical' work of Strode's definitely dating from this period of his life, it seems almost certain that Chaucer knew of Strode's controversies with Wyclif, and, I will argue, it is highly probable that he knew them first-hand.³⁹⁶

Not only is Chaucer's phrase a consistent and exact translation of Wyclif's, it is also not unreasonable to assume that Chaucer had some sort of access, whether direct or second-hand through conversation with Strode, to the text containing the Latin maxim. As Anne Hudson points out, referring specifically to both *Troilus* and Wyclif's letters to Strode (but not to the particular phrase in question), 'Chaucer's interest in topics Wyclif discussed is not, of course, startling'.³⁹⁷ What is rather more surprising is that in almost forty years critical attention to the possible implications of Chaucer's quotation for our understanding of the poem as a whole has been remarkably cool and nonchalant. Bennett developed his hypothesis no further than a passing reference. In 1980, Alan Gaylord devoted little more than a paragraph, albeit a highly insightful paragraph, to sketching out the possible ramifications of Chaucer's possible quotation of Wyclif:

³⁹⁶ According to J. D. North, 'Strode's *Logica* was written in or not long after 1359': 'Strode, Ralph (*d.* 1387)', in *ODNB*. Richard Sharpe lists manuscripts containing elements of Strode's *Logica*, the earliest dated manuscript given being Cracow, Jagiellonian Library MS 2660, which contains Strode's treatise on the *Consequentiae*, and is dated 1371, before Strode was sworn in as Common Pleader for London (Delasanta, 'Chaucer and Strode', p. 206). See Sharpe, *A Handlist*, pp. 452-53. Delasanta addresses Marchette Chute's mistaken assumption that the controversy with Wyclif took place before Strode moved to London. See Delasanta, 'Chaucer and Strode', p. 207 and Chute, *Geoffrey Chaucer*, p. 144.

³⁹⁷ Hudson, *Premature Reformation*, pp. 392-93. Hudson's assessment of Chaucer's probable attitude towards the Wycliffite movement, based on his presentation of the Parson (pp. 390-94), is rather more generous than my own, based on *Troilus and Criseyde*.

Even more to the point are [Strode's] *argumenta* addressed to Wyclif, for these show him to be pressing Wyclif on the more severe aspects of his theology of predestination. We cannot tell what reasoning Strode followed, but it is fascinating to see much of the same vocabulary involved in some of Wyclif's replies as appears in Troilus's soliloquy, including the startling *omnia que evenient de necessitate evenient* [...]. Tatlock summarises his position: 'Ralph Strode as a theologian seems to have been a thorough conservative, who fought Wyclif's doctrine of predestination as inconsistent with man's free will', but I think he misses the point when he suggests that 'Strode would have been an uncompromising critic' of Chaucer's poem [...]. Chaucer is to Troilus-the-character on the subject of free will as Strode is to Wyclif. The dedication to Strode confirms the poem's serious and elaborate development of 'philosophical' themes.³⁹⁸

Gaylord's assertion that Chaucer means his audience to be highly critical of the quasi-Wycliffite view of necessity that Troilus unfolds in the soliloquy is important, and I will return to it later. However, Gaylord's conclusion might also be said to understate the importance of the Wyclif-Strode controversy both for the poem and for our wider understanding of Chaucer.

William Watts and Richard Utz, in an article on 'Nominalist Perspectives on Chaucer's Poetry', give a brief but useful summary of one understanding of the Wycliffite connection in the soliloquy, made in an unpublished PhD thesis of 1972 by Gertrude Jurschax, which

asserts that Chaucer's poetry reflects Wyclif's teachings on predestination and determination rather than Bradwardine's less-pointed views. She argues that Wyclif's theory was especially suited to the period of disaster and plague in which Chaucer lived [...]. According to Jurschax, there is particularly strong evidence that Chaucer succumbed to such a pessimistic, Wycliffite frame of mind while writing *Troilus and Criseyde*.³⁹⁹

In contrast, Utz himself has argued elsewhere that Chaucer pointedly alters the Boethian arguments concerning necessity and free will, specifically in order to undermine Wycliffite

³⁹⁸ Gaylord, 'The Lesson of the *Troilus*', pp. 37-38.

³⁹⁹ Watts and Utz, 'Nominalist Perspectives', p. 159. See also Jurschax, 'Chaucer and Fourteenth-Century Thought'.

determinism.⁴⁰⁰ Of the two, Utz's position seems to me more convincing as far as it goes, especially given that John Huber persuasively demonstrated back in 1965 how Chaucer shapes the Boethian discussion of necessity in *De consolazione Philosophiae*, by omission, addition and perhaps at times by deliberate mistranslation, into a totalising argument against free will.⁴⁰¹

Since Huber's analysis provides a useful basis for my own argument, I will take the opportunity to provide a brief summary of the five ways in which, according to Huber, Chaucer manipulates Boethius. First, whereas Boethius never denies free will outright, Troilus does so at the very beginning of his argument (Huber does not notice that Troilus's denial is couched in Wyclif's terms). Second, Troilus is much stronger than Boethius in attacking the idea that God's foreknowledge may be in anyway uncertain (IV. 85-94, IV. 1063-64). Third, Troilus overstates his case against free will, adding three lines not found in Boethius (IV. 1048-50). Fourth, Troilus mistranslates Boethius, adding 'by necessite' ('necesse est' having been already translated by 'bihoveth it nedfully': IV. 1051-57). Finally, whereas Boethius concedes that without free will prayer would be useless, Troilus never considers the objection at all, even though he concludes his soliloquy with a prayer. It seems clear, then, that Chaucer does indeed transform the Boethian discussion into a presentation of absolute necessity that flows seamlessly from, and acts as a specious justification of, his translation of Wyclif's maxim.

Most recently, in his 2005 book *Fallible Authors*, Alastair Minnis seems to support the thesis that the Wycliffite element of Troilus's soliloquy is not intended as a Chaucerian endorsement of Wyclif's position, but quite the reverse: 'The fact that a view characteristic of Wyclif is put into the mouth of this philosophical pagan would probably have amused Ralph Strode, one of the addressees of Chaucer's poem [...], particularly since at Oxford he had

⁴⁰⁰ See Utz, *Literarischer Nominalismus im Spätmittelalter*.

⁴⁰¹ Huber, 'Troilus' Predestination Soliloquy', pp. 120-125.

debated with Wyclif on that very topic'.⁴⁰² Minnis, however, relegates his brief comment to a mere endnote and again does not explore the matter in any more detail.

There is certainly scope for a more thorough analysis of the place of Wyclif's maxim in the 'Responsiones ad argumenta Radulfi Strode'. However, although Bennett's original reference was to the 'Responsiones', it must be conceded that Wyclif's maxim makes an appearance in a number of his other works, notably in *De potestate Pape* and the *Dialogus*.⁴⁰³ It was, it seems, something of a catchphrase of his, at least towards the end of his career.⁴⁰⁴ After Wyclif's death it became something else: a proof-text of Wycliffite heterodoxy. Wyclif's maxim was explicitly condemned alongside eight other 'haereses et errores' from the 'Responsiones' by the Oxford commission of 1411: 'Ut fidem assero, quod omnia, quae eveniunt, de necessitate eveniunt; et sic Paulus praescitus non potest vere poenitere, hoc est, contritione peccatum finalis impenitentiae delere, vel ipsum non habere' ('I assert my belief that everything which comes about comes about of necessity; and thus the foreknown [i.e. to be damned] Paul cannot truly repent: that is, destroy by contrition the sin of final impenitence or not ever have that [sin]').⁴⁰⁵ It is possible, therefore, that Chaucer knew the phrase from another of Wyclif's works, or simply by hearsay, although the 'Responsiones' seems by far the most probable source. What is more interesting about the 1411 condemnation is that although it strips Wyclif's assertion of all the various mitigations, qualifications, caveats and nuances with which it is surrounded in the original text, it includes another snippet of his answer to Strode that demonstrates the broader context: the problem of reprobation.⁴⁰⁶ The assertion of absolute necessity in this particular context was obviously

⁴⁰² Minnis, *Fallible Authors*, p. 431.

⁴⁰³ See Wyclif, *Tractatus de potestate Pape*, p. 313; *Wyclif: Dialogus*, pp. 289-90 (iv. 13). This second passage is also cited by Michael Wilks, 'The Early Oxford Wyclif', p. 37; there are numerous other examples of the phrase in the *Dialogus*.

⁴⁰⁴ Willielm Thomson dates the *De potestate Pape* to 1379 and the *Dialogus* to 1382-83. Thomson, *Latin Writings*, p. 62 and p. 79.

⁴⁰⁵ *Concilia Magnae Britanniae*, III, p. 349; cited in Willielm Thomson, *Latin Writings*, p. 236.

⁴⁰⁶ The context of reprobation, which I will argue is implied in Chaucer's use of Wyclif's maxim, renders it even more unlikely that Chaucer knew the phrase only from *De potestate Pape*, where it is used in an entirely

regarded as the central aggravation of Wyclif's position, and it is to this aspect of the problem that I will shortly turn. Before doing so, I should perhaps offer a brief survey of the 'Responsiones ad argumenta Radulfi Strode' as a whole.

Reprobation in the 'Responsiones'

Wyclif's 'Responsiones' constitute a reply to a now lost piece of correspondence which scholars since Herbert Workman have christened *XVIII Positiones Contra Wiclevum*, for want of a better name.⁴⁰⁷ In this text, Ralph Strode put six objections each to three particular positions of Wyclif: on predestination, on ecclesiastical endowments, and on correcting the corruption of the church. The first of these groups of six objections is obviously of most relevance to the *Troilus*, and it is here that we find Wyclif's maxim on necessity. We are able to glean something of the arguments that Strode had originally put to Wyclif, because Wyclif quotes, or perhaps summarises, Strode's objection before making his response to each. Strode's first objection concerns whether the Church is made up only of the elect. His second objection concerns whether a reprobate child can die immediately after baptism (and so in a state of grace). His third concerns whether one of the elect can commit mortal sin and whether, on the other hand, a reprobate can avoid it. His fourth concerns whether the same person can be a member of the Church and of Satan at the same time (in Strode's example, Peter, whom Christ calls 'Satan', in the gospels).⁴⁰⁸ His fifth concerns whether the reprobate ought to hope for salvation. Finally, his sixth objection, the reply to which Chaucer probably is probably quoting, concerns the free will of the reprobate and the conflicting desires of God.

different context: that of the validity of certain papal acts. The later date of the *Triologus*, where the phrase is used in relation to the punishments inflicted upon the damned, perhaps also renders it a less likely, although not impossible, inspiration for the composition of the *Troilus*. From both internal and external evidence, the balance of probabilities must be said to weigh heavily in favour of Chaucer knowing the 'Responsiones' firsthand.

⁴⁰⁷ See Williel Thomson, *Latin Writings*, p. 236.

⁴⁰⁸ See Matthew 16:23 and Mark 8:33.

At this point it is vital to reiterate that Strode was a logician, rather than a theologian, and a logician later to be of international regard, as Delasanta has pointed out.⁴⁰⁹ Each of the six objections that Strode makes to Wyclif's position on predestination posit a logical problem or contradiction, rather than attacking Wyclif on the grounds of his heterodoxy. Strode had known Wyclif first as an (admittedly controversial) Oxford logician.⁴¹⁰ It is therefore unsurprising that, upon a subject so closely associated with the philosophical problem of necessity, Strode chose to argue in logical terms, and probably expected a response in the same terms. Wyclif, it must be added, came to associate his time as a '*logicus*, one who has not yet become a theologian [... as] his age of infancy [...], occupied with dubious pursuits like the study of optics and other time-wasting philosophy';⁴¹¹ although it seems likely, nevertheless, that he returned to and heavily revised his *Summa logica* before his death.⁴¹² In the 'Responsiones' he admits to a certain arrogance in the schools, and his replies to Strode tend, at times, to sidestep logical debate in favour of theological assertion.⁴¹³ Nevertheless, as I hope to show, certain of Strode's objections are so clearly questions of logic, that Wyclif is forced to reply in kind, especially towards the end of the section dealing with predestination.

Crucially, Strode's first objection can be fully understood only in the light of Wyclif's participation in the wider logical debate over continua and continuous change, as well as in reference to his particular position on accidents and substance in the Eucharist.⁴¹⁴ In Wyclif's ecclesiology we see that element of Wyclif's thought that Chaucer is exploring in *Troilus*:

⁴⁰⁹ See Delasanta, 'Chaucer and Strode', p. 205. See also the brief biography of Strode in the Introduction to this thesis.

⁴¹⁰ See Delasanta, 'Chaucer and Strode', pp. 206-207.

⁴¹¹ Wilks, 'The Early Oxford Wyclif', pp. 55-56.

⁴¹² See Wilks, 'The Early Oxford Wyclif', pp. 56-57.

⁴¹³ Wyclif, 'Responsiones ad argumenta Radulfi Strode', in *Opera Minora*, pp. 175-200 (p. 197).

⁴¹⁴ For a fuller discussion of the effect of Wyclif's indivisibilist logic upon his theology, see Kretzmann, 'Continua, Indivisibles, and Change', pp. 31-65.

what Gordon Leff calls, a ‘rigidity [that] could scarcely go further’, and it is this quality that Strode seems determined to subvert.⁴¹⁵ His first objection, as Wyclif gives it, ran as follows:

*Si ecclesia catholica sit totus numerus predestinatorum et continue per processum temporis innovatur talis numerus, sequitur quod continue innovatur ecclesia, et sic in articulis fidei periret certitudo propter incertitudinem credite veritati.*⁴¹⁶

(If the Catholic Church were the whole number of the predestined and over the process of time this number were continuously being changed, it follows that the Church would be changed continuously, and certitude in the articles of faith would be in vain because of this uncertainty of the truth believed.)

In other words, if the Church is merely a collection of predestined individuals (‘numerus predestinatorum’), and the individuals are being constantly lost and replaced, then the Church is being continually changed ‘per processum temporis’. In that case, to extend Strode’s line of thought, how can one say, as the Creed says, that the Church remains at all? For if one were to answer that the Church has lost merely its accidents but not its substance in the change (as one might with Buridan’s ‘raw’ food above), then Wyclif must accept that the predestined members of the Church do not in themselves constitute the Church, but merely its accidents. In which case, what is the substance? Wyclif’s famous doctrine of the Eucharist denies the possibility of accidents existing without a substance, as he mentions in another correspondence with Strode.⁴¹⁷ Even if they so exist in this case, if a body has only accidents and no substance, and the accidents change, then how is it still the same body?⁴¹⁸ It seems that, in his ecclesiology, Wyclif is guilty of the ‘folie’ that Troilus himself acknowledges, of

⁴¹⁵ Leff, *Heresy*, II, p. 517.

⁴¹⁶ Wyclif, ‘Responsiones ad argumenta Radulfi Strode’, in *Opera Minora*, pp. 175-200 (p. 175); for Wyclif’s response, see pp. 175-76. Loserth uses italics to designate what he takes to be Strode’s words, rather than Wyclif’s.

⁴¹⁷ See ‘Responsiones ad argumenta cuiusdam emuli veritati’, in *Opera Minora*, pp. 258-312 (p. 307): ‘heresi de accidente sine subiecto’. The ‘socius’ to whom Wyclif is responding is almost certainly Strode. See Williel Thomson, *Latin Writings*, pp. 234-39. For a neat summary of Wyclif’s position on accidents and substance in the Eucharist, see Kenny, *Wyclif*, pp. 80-90 (esp. pp. 82-86); for Wyclif’s own discussion of the problem see *De Eucharistia Tractatus Maior*, p. 63.

⁴¹⁸ Strode’s insistent strategy of attacking Wyclif’s positions from a *logical* direction is also, it might be argued, an indication that even Wyclif’s contemporaries were alert to the tensions between Wyclif’s metaphysics and his ‘moral and religious’ attitudes that Gordon Leff has discussed, and saw this as a weak spot in his disputational defences. See Leff, ‘The Place of Metaphysics’, pp. 217-32.

forfeiting ‘substance’ in favour of ‘accident’ (IV.1504-505). Strode thus attempts to corner his adversary, either into accepting a more continuous approach in his logic, or into moderating his conception of the Church as a single, rigid, predestined body. Wyclif’s answer in the ‘Responsiones’ is twofold: first to conflate time into the present, where past and future meet and unify; second, to accept that the body changes its parts but to assert that it remains one by succession. It must be said that neither solution seems logically adequate; but nevertheless, the first argument is, at least in large part, a logical one, inspired by the idea of *ampliation*, the technique of expanding the reference of a term in a proposition beyond merely the present, and into the past or future.⁴¹⁹

As the brief summary above demonstrated, the problem of reprobation runs throughout Strode’s six objections to Wyclif’s determinism, and in the sixth objection the problem is posited in such a way as to interweave it with the problem of free will and necessity:

*stat in libertate arbitrii prescitorum quomodo unus eorum potest esse vere penitens et sic mori et per consequens esse membrum ecclesie et salvari; grave etiam videtur concordare voluntates divinas, quibus Deus vult quod iste salvetur et quod iste idem dampnetur, cum ista sint impossibilia et per consequens non terminant iustam et incommutabilem voluntatem.*⁴²⁰

(It stands in the freedom of the will of the ones ‘foreknown’ [i.e. to be damned] that one of them is able to be truly penitent and to die in this state and consequently to be a member of the church and to be saved; for it seems difficult to reconcile the Divine wishes, by which God desires that this man be saved and that this same man be damned, since these [desires] are incompatible and consequently they do not result in a just and immutable will.)

⁴¹⁹ Geoffrey Shepherd notes that Wyclif considered that another fourteenth-century theologian, Fitzralph, ‘had failed despite twenty years’ work to solve the problem of contingency “because he had ignored the ampliation of time”’: ‘Religion and Philosophy’, p. 283 (note); citing Wyclif, *De Ente*, p. 184. For a concise discussion of ampliation in the context of fourteenth-century theories of supposition, see Spade, ‘Late Medieval Logic’, pp. 412-415 (esp. p. 414).

⁴²⁰ Wyclif, ‘Responsiones ad argumenta Radulfi Strode’, in *Opera Minora*, pp. 175-200 (p. 181).

If a reprobate has free will, then he might repent; and if he repents, he will be saved; but if this is truly contingent upon his choice, then how does that fit with God's own free will, that is his overriding choice of election? Wyclif's response begins with a string of caveats:

Hic dicitur quod circa necessitatem futurorum est magnum scrutinium [...] Ideo oportet tenentem istam viam catholicam esse in materia de Dei preordinancia circumspectum et in sententia de eadem preordinancia; [...] et cum hoc tercio in aptacione verborum logicalium circumspectum.⁴²¹

(Here it is said that there is great debate about the necessity of future events [...] Therefore it is important that, keeping to the way of orthodoxy, one should be circumspect regarding the preordenance of God, both in matter and in sentence [...] and thirdly circumspect in the use of logical terms.)

The laudable caution Wyclif demonstrates here – because he realises that Strode's objections are matters of 'verborum logicalium' and is being careful not to be caught out – only makes his next move all the more astounding. He asserts that all that comes, comes by necessity, although he quickly allows for a limited understanding of contingency: 'Ut fidem ergo modo assero quod *omnia que eveniunt de necessitate eveniunt* et cum hoc dupliciter potest contingencia intelligi vel condicionaliter vel eciam quoad tempus' ('therefore I now assert my belief that everything which comes about comes about of necessity and, with this, contingency can be understood in a double sense: *conditionally* or indeed according to time').⁴²² This assertion, of course, does very little to solve the problem of the free will of the reprobate; but Wyclif does go on to suggest a solution, which I will return to later. For now it is enough to demonstrate that the context in which Chaucer most probably found the phrase that he gives to Troilus is concerned with from the logical problematics of reprobation.

This context might help explain certain elements of the stanza introductory to Troilus's soliloquy which do not seem to connect clearly with the Boethian discussion of necessity and foreknowledge:

⁴²¹ Wyclif, 'Responiones ad argumenta Radulfi Strode', in *Opera Minora*, pp. 175-200 (p. 181).

⁴²² Wyclif, 'Responiones ad argumenta Radulfi Strode', in *Opera Minora*, pp. 175-200 (p. 181).

And shortly, al the sothe for to seye,
 He was so fallen in despeir that day,
 That outrely he shop hym for to deye.
 For right thus was his argument alway:
 He seyde he nas but lorn, weylaway!
 ‘For al that comth, comth by necessitee:
 Thus to ben lorn, it is my destinee.’ (IV. 953-59)

After the quotation from Wyclif, the most important clue that Chaucer may have intended Troilus’s soliloquy to be regarded in the context of reprobation is the word ‘lorn’. It is striking that both in the narratorial summary of Troilus’s reasoning (957), and in his own initial words (959), the focus is upon the unhappy end of Troilus himself, rather than upon the impending departure of Criseyde (who is not mentioned at all until the next stanza, and then not again until the closing prayer to Jove). Neither is it made clear what Troilus means by ‘lorn’. Perhaps the most obvious reading is in terms of ‘courtly love’, that by ‘lorn’ Troilus means dead of sorrow. Yet Troilus ‘shop hym for to deye’ because ‘he seyde he nas but lorn’. Troilus is in danger of death not because he *is* ‘lorn’ (whether this means lovelorn or not), but because of his *knowledge* of being ‘lorn’, and the despair consequent upon it. In any case, ‘lorn’ need not mean ‘lovelorn’: it also has eschatological connotations. The MED allows the verb ‘lesen’ to mean ‘to doom [...] to perdition, damn’; ‘to consign (the soul and body) to (hell)’; ‘to destroy oneself spiritually, be damned’; and ‘to come to perdition, be damned’.⁴²³ ‘Lorn’, therefore, may mean simply ‘damned’; indeed, the word ‘lost’ can still hold the same connotations in modern English, just as the Latin verb ‘pereo’ could.⁴²⁴ This reading of the word is strengthened by the religious tenor of the lines directly preceding this stanza: ‘Ful tendrely he preyde and made his mone, / To doon hym sone out of this world to pace, / For wel he thoughte ther was non other grace.’ (IV. 950-52). Troilus, lacking ‘grace’, despairs and becomes suicidal; as Henryson would later put it, he falls into ‘wanhope’.⁴²⁵ As in the case of Judas, the classic exemplar of ‘wanhope’, the sin of despair tempts towards the sin of

⁴²³ MED, s.v. ‘lesen’, v. (4), 9c.

⁴²⁴ See *Medieval Latin Word-List*, ed. by Latham, ‘peritus’.

⁴²⁵ Henryson, *Testament of Cresseid*, line 47.

suicide.⁴²⁶ The introductory stanza to the soliloquy thus reinforces the likelihood that Chaucer was aware of the prominence of the issue of reprobation in the source of ‘al that comth, comth by necessitee’.

The Logic of Reprobation

The emphasis on Troilus’s ‘despeir’ can, therefore, be understood in the context of the problematics of reprobation. Like the ‘Sortes dampnabitur’ problem that I discussed above in relation to the Nun’s Priest’s Tale, ‘wanhope’, despair of God’s grace, was most often presented as a counterargument to unqualified predestination.⁴²⁷ The basic paradox simply runs as follows: if a man is to be damned and, believing this truth, despairs of being saved, he will be damned for his sin of despair in God’s grace. Thus he is damned for believing what is true; but on the other hand, it is only true because he believes it. It is a self-fulfilling prophecy; and there seems no justice in the punishment.

Strode’s fifth objection to Wyclif, directly before the passage from which Chaucer quotes, deals with this very problem, emphasising the logical nature of the paradox:

*tam stricte concipere de predestinatis et prescitis auferret meritum bone spei, quia, cum nemo debet supponere vel reputare falsum et nemo nostrum scit modo utrum sit predestinatus vel prescitus, videtur quod nemo nostrum debet sperare se esse salvandum, vel de alio reputare sive supponere quod sit de numero dampnandorum vel eciam salvandorum.*⁴²⁸

(To think so strictly of the predestined and the foreknown [i.e. those to be damned] takes away the merit of good hope, because, since no one ought to suppose or believe a falsehood and none of us knows in any

⁴²⁶ Matthew 27:3-5; See Snyder, ‘The Left Hand of God’, p. 34. Snyder traces the development of the theological and cultural concern with ‘despair’, to which the figure of Judas is consistently central. Snyder also emphasises that the recurrent anxiety about despair was often linked with strong doctrines of predestination. Her first, brief example (p. 41) is the literature of the late fourteenth-century (including Chaucer, Langland and the *Pearl*-poet), which she seems to attribute to the indirect influence of Bradwardine’s *De causa Dei*. However, her article is a broad survey and the connection she suggests is left largely unexplored.

⁴²⁷ ‘Wanhope’ is also, of course, one of the conventional paradoxes of love, as Reason explains in *The Romaunt of the Rose*, B. 4707-709: ‘In herte is a dispeiryng hope, / And full of hope, it is wanhope; / Wis woodnesse, and wod resoun’. There need be no dichotomy between ‘wanhope’ as a problem of love and ‘wanhope’ as a problem of the intellect, for its power as an image of amatory confusion derives, in part, from its currency as a logical and theological paradox.

⁴²⁸ Wyclif, ‘Responiones ad argumenta Radulfi Strode’, in *Opera Minora*, pp. 175-200 (p. 180).

way whether he is predestined or foreknown [i.e. to be damned], it seems that none of us ought to hope that he is going to be saved, or to believe or suppose that anyone else may be among the number of those to be damned, or even [among the number] of those to be saved.)

It would be wrong, suggests Strode, for a reprobate under a scheme of absolute predestination even to hope for his own salvation; or indeed for anyone to hold an opinion on who may be saved and who may be damned. Wyclif's initial reply to this startling objection may seem strangely analytical. He attempts first carefully to differentiate between knowing, believing and hoping: 'oportet diligenter cognoscere distincionem inter hos tres actus, scilicet scire, credere et sperare' ('It is necessary to distinguish carefully between the following three actions: namely, to know, to believe and to hope').

Wyclif's manner of reply makes much more sense in the context of the sophisms discussed by fourteenth-century logicians, whose general process of investigation consisted of analysing ambiguous or otherwise difficult propositions that led sometimes merely to linguistic confusion and other times to apparent insolubility. The basic version of the 'wanhope' paradox not only places Socrates in an unenviable position ('Sortes dampnabitur', as Holcot puts it), but it also places a just God in an insoluble quandary. If men are only to be punished for wrongdoing, and to believe the truth is not to do wrong, then how can Socrates be damned for his 'wanhope'? Yet if Socrates is therefore not to be damned, then his belief in his damnation is false and he must be punished for it; and so the paradox continues. The most famous example of this sort of insoluble is the so-called 'Buridan's Bridge', discussed above, where Plato vows to throw Socrates into the water if his next proposition is not true, and Socrates cunningly replies, 'You will throw me in the water'.⁴²⁹ In the theological equivalent of Buridan's paradox, stating the truth is replaced by believing the truth, and being thrown in the water becomes being thrown into hell. Otherwise the problems are practically identical.

⁴²⁹ See above. For the original sophism, see Buridan, *Sophisms*, p. 219 (Chapter 8, Sophism 17).

Buridan's uncomfortable solution was that Plato lied when he made his ultimatum.⁴³⁰ Robert Holcot, astonishingly, had concluded something similar about God: that He is capable of deceit in the revelations He makes about future contingents.⁴³¹ Of course, neither Holcot's view of contingency nor of divine deceit would have been particularly palatable to Wyclif, and he has to find another solution.

Epistemic verbs such as 'to know', 'to believe', 'to doubt' and intensional verbs such as 'to wish' and 'to desire' were the particular subject of extensive debate amongst fourteenth-century logicians. For instance, William Heytesbury, another of the Calculators, specifically categorises such verbs as one of the eight modes by which fallacies of composition and division can occur in his *Regule solvendi sophismata*.⁴³² Strode's introduction of such terms into his formulation of the 'wanhope' paradox mark it out clearly as an attempt to corner Wyclif into another logical paradox. The sort of insoluble that utilises these verbs can again be exemplified by Buridan, who, just a few pages before his bridge insoluble, poses the following sophism:

Socrates knows the proposition written on the wall to be doubted by him.

I posit the case that only the aforesaid proposition is written on the wall, and that Socrates sees it, examines it, and doubts whether it is true or false, and that he knows himself to doubt it. It is asked whether it is true or false.⁴³³

Of course if Socrates consciously doubts the proposition, then he must know it to be true; and therefore he cannot doubt it. If he does not doubt it, then he cannot know the proposition to be true because the proposition states that he is doubting, so therefore he must doubt it again; and so on. This is just one of a multitude of possible examples of the seemingly insoluble

⁴³⁰ Buridan, *Sophisms*, p. 220.

⁴³¹ See Holcot, *Seeing the Future*, pp. 49-50.

⁴³² See Wilson, *Heytesbury*, pp. 12-18.

⁴³³ Buridan, *Sophisms*, p. 207 (Chapter 8, Sophism 13).

paradoxes that live in what perhaps could be called the ‘epistemological cracks’ between different verbs of knowledge and doubt.

Strode’s proposed paradox offers something similar. Since hoping for something effectively involves doubting its certainty, the man in Strode’s *casus* could be seen as standing in the same relationship to the pre-ordained sentence on his life (whether he is to be saved or damned) as Socrates stands in relation to the proposition on the wall. Thus it is possible to build a paradox similar to the epistemic *sophismata* of the fourteenth-century logicians in terms of ‘hope’ and ‘salvation’. For instance,

If he does not doubt this proposition, Socrates is to be damned.⁴³⁴

If Socrates believes that he is *necessarily* to be damned, then logically he cannot doubt the proposition. Why? Because as Strode himself states in his treatise on *Consequentiae*,

necessarium sequitur ad quodlibet, id est, omnis consequentia est bona cuius consequens est necessarium. [...] exemplum [...]: ‘ut tu sedes, ergo deus est’.

(a necessary proposition follows after any other proposition. That is, every *consequentia* is sound of which the consequent is necessary. [...] An example of the [...] rule is, ‘Since you sit, therefore God is.’)⁴³⁵

In other words, because God *necessarily* exists, that conclusion can follow from *any* premise, however seemingly irrelevant or ridiculous. God exists if you are sitting down; and he exists if you are standing up; and he would even exist if you were something impossible: an ass, for

⁴³⁴ That either Strode explicitly posited some sort of conditional proposition like this one in his original argument or that Wyclif understood the implication of such a conditional is demonstrated by Wyclif’s concession in his answer to the next objection, by which he attempts to maintain his conjunction of absolute predestination and a sort of contingency: and in which he argues that such a man is not damned for his *foolishness* but for his demerits; Wyclif, ‘Responsiones ad argumenta Radulfi Strode’, in *Opera Minora*, pp. 175-200 (p. 182).

⁴³⁵ Strode, ‘*Tractatus de Consequentibus*’, p. 2; translation, p. 139 (section 1. 1. 04). In the ‘Responsiones ad argumenta cuiusdam emuli veritati’, Wyclif challenges his opponents use of *consequentia*, by comparing his argument to the proposition ‘Deus est, ergo sequitur consequentia quam intendo’ (‘God exists, therefore it follows that whatever consequence I think of [is valid]’), which is a fallacious inversion of the rule Strode explains in the passage quoted. This must be considered further evidence both that the *emulus veritati* is indeed Strode and that Wyclif recognised, and was prepared in places to respond to, Strode’s primarily logical objections to his theology. See Wyclif, ‘Responsiones ad argumenta cuiusdam emuli veritati’, in *Opera Minora*, pp. 258-312 (p. 275).

example. Therefore, it is valid to say, ‘Since I sit, therefore God exists’ or ‘Since I am an ass, therefore God exists’. In the above proposition, Socrates is in a similar position. If Socrates is *necessarily* to be damned, as he believes, then the conclusion that ‘Socrates is to be damned’ must follow from *any* premise. Thus it must be valid to say, ‘Since Socrates does not doubt this proposition, therefore he is to be damned’. So if Socrates believes he is *necessarily* to be damned, he cannot doubt the proposition: from which it follows that he is indeed to be damned. A man who believes in his own *necessary* perdition is, by this logic, logically incapable of even hoping for anything else.

Therefore, Strode suggests, to ask a man to hope for something which logic dictates he cannot hope for is to ask him willingly and consciously to submit himself to a lie, which must be sin: and by implication, the man can be damned for that sin. It is, quite literally, a case of ‘damned if you do and damned if you don’t’. Thus Strode is challenging Wyclif either to discard his pretence of a highly qualified contingency in his statement of absolute necessity, or to throw out his statement of absolute necessity in favour of a real contingency, like the one that Holcot is forced to adopt.

Wyclif’s response is precisely what is to be expected of a fourteenth-century logician dealing with difficult epistemic and modal verbs: that is, he makes careful distinctions before proceeding. Having made his distinctions, he then addresses the question of how the imperfect hope of the reprobate, falling short of faith and inspired by fear, is itself the cause of his hope being false. It is the lack of hope, or at least the lack of true hope, that causes the reprobate’s hope also to be in fact false: ‘quia qualitas spei sue, que potest vocari desperacio, ipsemet est in causa; et sic spes sua sive credulitas est talis perpetuo qualis non debet esse’ (‘because the quality of his hope, which can be called despair, is its own cause; and thus his hope or belief is perpetually of a kind it ought not to be’). Thus in one sense a reprobate *ought* to hope the false proposition that he is to be saved, in that a man *ought* so to live as to

make that proposition true; but by not doing so, the reprobate causes himself to need to believe something that is false. The reprobate's 'desperacio' or imperfect hope is the cause of the paradox he is caught in. Wyclif concludes, firstly, that the greatest evidence of true hope in an individual is that 'iustam viam suam continuat' ('he continues his righteous path'); and, secondly and rather pointedly, that the sure sign of a reprobate is that he complains about God's predestination: 'qui autem a vel blasfemat in Dei prescencia vel predestinacione, fatue se ipsum intricat et ad desperacionem preparat' ('he, however, who blasphemes against either God's foreknowledge or predestination entraps himself foolishly and prepares himself for despair').⁴³⁶

Troilus: The Paradox in Practice

Chaucer's Troilus likewise entangles himself by his own reasoning about the foreknowledge and predestination of God, resulting in his inability to resolve the problem in actuality. He believes that of necessity he is to be lost: 'For al that comth, comth by necessitee: / Thus to ben lorn, it is my destinee' (IV. 958-59). How Troilus has come to be convinced of this proposition at this point is unclear, although he will later receive divine confirmation through his dream (V. 1233-46) and through Cassandra (V. 1513-19). Salatha Griffin has argued that Troilus's knowledge is intuitive, deriving from a 'divinely inspired conviction'.⁴³⁷ Robert Holcot postulates a similar idea of a belief simply created within the mind of the subject by God, when posing his problems of foreknowledge, revelation, and predestination.⁴³⁸ However, as we have seen, such a belief (however Troilus becomes convinced of it) should – if things really do happen by necessity – make him both logically and morally incapable of

⁴³⁶ Wyclif, 'Responiones ad argumenta Radulfi Strode', in *Opera Minora*, pp. 175-200 (pp. 180-81).

⁴³⁷ Griffin, 'Chaucer's "Troilus and Criseyde"', p. 96. For her precise analysis of consequence in Troilus's soliloquy, see pp. 96-102. Although I share Griffin's appreciation of the relevance of Strode's logic to *Troilus and Criseyde*, it should be noted that her reading of the poem is fundamentally at odds with that presented by this thesis in a number of important respects, stemming principally from Griffin's highly questionable presentation of Strode as holding a predestinatory theology similar to Bradwardine's.

⁴³⁸ In his example, Holcot posits that God could directly maintain the belief in my mind that Socrates is running even after annihilating Socrates. See Holcot, *Seeing the Future*, p. 152.

really doubting it again. Troilus's capacity to redeem the situation is from that point limited to some extent. In John Huber's words, Troilus is

eager to prove the impossibility of free choice because without freedom the alternatives before him are simple: either a reversal of fortune in his favor, or death. These are the things he asks of Jove at the end of his soliloquy (iv. 1079-82). The choice of death or mercy he resigns to Jove, just as he has previously resigned responsibility toward Criseyde to Pandarus and Fortune. Troilus' soliloquy on predestination saves him from the need to act.⁴³⁹

In one sense only could Troilus be said to act upon his despair: at the start of his soliloquy the narrator tells us that 'he shop hym for to deye', and although the suicide is delayed, ultimately Troilus does seek his own death on the battlefield:

And certeynly, withouten moore speche,
From hennesforth, as ferforth as I may,
Myn owen deth in armes wol I seche;
I reche nat how soone be the day! (v. 1716-19)

Troilus's end perhaps illustrates Wyclif's answer to Strode's sixth objection about the free will of the reprobate: 'et sic talis utendo termino proprie non potest vere penitere sicut nec vult, sed *appetit ad suam dampnationem perpetuam antecedens*' ('and thus, strictly speaking, he is not able truly to repent nor does he want to, but lusts after his own eternal damnation in advance').⁴⁴⁰ The reprobate freely strives after his own damnation as Troilus strives after his own death.

Yet the whole soliloquy, and Troilus's consequent destruction, is premised upon his 'despeir', and serves as a justification of it. Troilus's complaint or blasphemy against God's prescience and predestination is also, by Chaucer's contrivance, a simplistic defence of the Wycliffite maxim, 'omnia que eveniunt de necessitate eveniunt'. Thus Chaucer puts into the mouth of a despairing reprobate one of Wyclif's favourite catchphrases to support his doctrine of predestination, presenting *it* as the cause of Troilus's despair and ultimate loss. This device is the perfect rejoinder to Wyclif's answer to Strode: if it *is* a failure of faith on

⁴³⁹ Huber, 'Troilus' Predestination Soliloquy', p. 125.

⁴⁴⁰ Wyclif, 'Responiones ad argumenta Radulfi Strode', in *Opera Minora*, pp. 175-200 (p. 182).

the part of the reprobate that leads to the paradox of ‘wanhope’, then perhaps that failure lies in holding to a quasi-Wycliffite view of predestination.

It would be simplistic to suggest that the soliloquy is intended accurately to represent Wyclif’s view of predestination and reprobation. Wyclif was not, in spite of his reputation, an extreme necessitarian. Indeed, the very fact that Wyclif happily adopts Strode’s term for the reprobate, ‘prescitus’, demonstrates that even he was attempting to distinguish between election to salvation and reprobation.⁴⁴¹ It is clear, however, that Strode and (judging by the Oxford condemnation) others who read Wyclif’s correspondence with him, felt that the logical extension of Wyclif’s position *led* to an extreme and highly destructive form of necessitarianism, which directly threatened the faith and morals of those who accepted it. Troilus, in his soliloquy, is not the real Wyclif: but he is Strode’s Wyclif, or rather Strode’s Wycliffite nightmare, the result for an ordinary human being of falling into error about the necessity of reprobation.

Such a reading injects irony into Chaucer’s later appeal to Strode to ‘correcte’ his work. It is not merely that, as Bennett puts it, Strode the well-respected logician is ‘just the man to spot errors [...] in Troilus’ logic’,⁴⁴² but rather that the errors in Troilus’s logic have been particularly designed to appeal to Strode who would recognise the parody of his old friend and adversary. Although this is caricature, Chaucer’s quotation from Wyclif’s responses to Strode is, in effect, a smoking gun that provides convincing evidence both of Chaucer’s interaction through his friend with the logico-theological controversies of his time and of his willingness to incorporate *immediately* contemporary philosophical problems into his own poetry.

⁴⁴¹ Kenny, *Wyclif*, pp. 40-41. ‘Prescitus’ perhaps suggests that the damned soul is *foreknown* to be damned, in contrast to the elect, who is actively predestined to salvation.

⁴⁴² Bennett, *Chaucer at Oxford*, p. 64.

Thus, just as Troilus seems to adopt a crude and basic version of the indivisibilism that Wyclif held, preferring simple categorisation and ‘distinction’ to an awareness of a continuum of human motivation, so he adopts a simplistic necessitarianism which allows him to ‘depart’ or categorise the possibilities for his future equally rigidly. He thus refuses the experience of human life and action in its true, fluid nature. It is interesting, then, that in his controversies with Wyclif, Strode invokes logical arguments based on the idea of the continuum in an attempt to temper his opponent’s harsh and absolute moral judgments. For instance, he uses the idea of (effectively) infinite limits to undermine Wyclif’s restriction of bishops’ temporal possessions; and attempts to soften Wyclif’s tendency to see human behaviour in terms of binary moral judgments (‘*approbata*’ (‘approved’) or ‘*simpliciter condemnanda*’ (‘simply to be condemned’)) into a more fluid and sympathetic understanding of the ‘*vita minus perfecta*’ (‘life less perfect’).⁴⁴³

In one of Wyclif’s other controversial letters to Strode, the ‘*Responsiones ad argumenta cuiusdam emuli veritati*’, Wyclif again demonstrates his fear of the ‘slippery slope’ in questions of morality, preferring a definite distinction between right and wrong. Strode, we are told, argued as follows. Clergy must have food and shelter. However, there is no logical distinction between one amount of food and shelter or another slightly larger amount (Strode’s phrase is ‘*non est ratio diversitatis*’ (‘there is no reason of difference’, i.e. no clear limit)). Since, therefore, no logical limit could be placed on the amount of such things that a cleric could own, ‘*videtur quod possunt super totum seculum dominari*’ (‘it seems that they could have domination over the whole world’).⁴⁴⁴ Strode seems to be suggesting that it is not possible to cut human behaviour up simply into right or wrong, logically speaking: more or less perfect would be a better way of thinking about it. Wyclif

⁴⁴³ See Wyclif, ‘*Responsiones ad argumenta Radulfi Strode*’, in *Opera Minora*, pp. 175-200 (pp. 182 and 185). In fact, Strode’s arguments are not dissimilar to those invoked by earlier logicians on questions of moral responsibility, such as Holcot (see Chapter 4).

⁴⁴⁴ Wyclif, ‘*Responsiones ad argumenta cuiusdam emuli veritati*’, in *Opera Minora*, pp. 258-312 (p. 292).

replies, using a fable of a fox and a goose to illustrate the dangers of viewing human behaviour in terms of such a 'sliding scale' of morality between right and wrong, since it will always slide one way:

sicut fuit de vulpe que in aura frigida voluit hospitari; que primo ex auge licencia pedem unum imposuit et post secundum totum corpus in processu temporis introivit et sic aucam callide suffocavit.⁴⁴⁵

(Thus it was with the fox which wanted to lodge in the cool air, [and] which at first, by permission of the goose, put one foot in and later, in process of time, got his whole body in and so the goose suffocated with the heat.)

It is interesting, in the context of my analysis of tropes from the *sophismata physicalia* in *Troilus*, that Wyclif's example here is also one of heat change over time ('in processu temporis'), albeit probably of a more moralistic and less sophistic heritage. Wyclif goes on to argue that there is in fact a line dividing sin from right conduct, and that, to the extent that there is a sliding scale at all, it is merely that those clerics who own more, sin more. His insistence on trying to find a 'ratio diversitas', to use Strode's phrase, is reminiscent of *Troilus*'s adoption of the scholastic maxim, 'diversitas requirit distinctionem'.

Sadly, Wyclif's refusal to accept any fluidity in his approach to human behaviour and motivations seems to poison even his own close friendships. Although Wyclif's relations with Strode are generally represented as cordial (Wyclif elsewhere addresses Strode as 'magister reverende et amice precarissime' ('Revered master and most dear friend')), Wyclif's manner of disputation with his colleague gives no sign that Strode's attempts at mollification had any effect.⁴⁴⁶ At one point Wyclif refers to an argument of his opponents as 'isto merdo sophismate' ('this shitty sophism');⁴⁴⁷ and the valedictory sentence of the 'Responiones' constitutes a stinging indictment of apologists like Strode, 'qui [...] defendunt contra Christum istud peccatum maximum, prevaricatores ingratisissimi et discrasie

⁴⁴⁵ Wyclif, 'Responiones ad argumenta cuiusdam emuli veritati', in *Opera Minora*, pp. 258-312 (pp. 293-94).

⁴⁴⁶ Wyclif, 'Responsio ad decem questiones magistri Ricardi Strode', in *Opera Minora*, pp. 398-404 (p. 398).

⁴⁴⁷ Wyclif, 'Responiones ad argumenta Radulfi Strode', in *Opera Minora*, pp. 175-200 (p. 191).

tocius ecclesie causativi' ('who [...] defend, in the face of Christ, that greatest of sins, graceless prevaricators who are the cause of the disgrace of the whole church').⁴⁴⁸ It is perhaps no wonder that a literary friend of Strode's may have desired to depict the human cost of his adversary's over-simplistic philosophy.

Strange Beginnings

The reductive logic of Troilus also manifests itself in his understanding of love and the experience of falling in love, and here all his logical failings work together to produce his 'double sorwe'. Another major sub-genre of the problems of continua was the question of beginnings and endings. Problems of this type are a staple of the *sophismata*, being of especial interest to logicians concerned with the *physicalia*. Heytesbury, for instance, dedicates a whole chapter of his *Regule solvendi sophismata* to problems 'De incipit et desinit' ('Concerning beginnings and ends'), before continuing with chapters 'De maximo et minimo' ('On maximum and minimum': 'essentially a treatise on the setting of boundaries to the range of variable quantities of different types') and 'De tribus predicamentis' (concerned with problems of velocity and acceleration).⁴⁴⁹ The basic problem of beginnings and endings, which has its foundations in Aristotle, concerned the ability to identify a *precise instant* at which a process 'begins' or 'ends':

There was, however, an additional problem about motion or change that had to be faced. In the fifth chapter of Book VI of the *Physics*, Aristotle introduced this additional problem by noting that, since any motion or change is always from something to something, it follows that 'that which has changed must at the moment when it has first changed be in that to which it has changed.' But how is this to be made to jibe with the already well-established *continuity* of motion or change? [...]The second Aristotelian ingredient also comes from the *Physics*: Book VIII, chapter 8. There, Aristotle can be found musing over a puzzle that arises when a 'contradictory change' occurs within some given interval of time: namely, when some subject changes at some instant within that time interval from (say) not-being white to

⁴⁴⁸ Wyclif, 'Responiones ad argumenta Radulfi Strode', in *Opera Minora*, pp. 175-200 (p. 200).

⁴⁴⁹ Wilson, *Heytesbury*, p. 6.

being white. The puzzle has to do with the status of the subject at that instant of change.⁴⁵⁰

There are a number of different occasions throughout the poem when Chaucer describes an emotional change in terms of a physical or physiological change, both in terms of heat (for example, III. 800) and colour (for example, III. 82): and it is worth noticing that these changes are frequently qualified with the adverb ‘sodeynly’ or ‘sodeynliche’. The image of sudden (that is instantaneous), physical and, by implication, emotional, *mutation* (to use the Aristotelian term) seems to be recurrent in the narrative. Such a pattern might be discountable as purely idiomatic or conventional, were it not for the fact that in *Troilus and Criseyde* Chaucer twice explicitly addresses the issue of instantaneous change, once through physical, even scientific, metaphor and once in direct emotional terms.⁴⁵¹

Pandarus counsels Troilus to hope for a sudden and irrevocable change in Criseyde’s feelings by urging analogies of physical change:

Thenk here-ayeins: whan that the stordy ook,
On which men hakketh ofte, for the nones,
Receyved hath the happy fallyng strook,
The greete sweigh doth it come al at ones,
As don thise rokkes or thise milnestones;
For swifter cours comth thyng that is of wighte,
Whan it descendeth, than don thynges lighte. (II.1380-86)

Both the oak and the falling rock or millstone are images found in fourteenth-century discussions of problems of intension and remission or beginning and ending: the oak (‘quercus’), for instance, in Heytesbury’s discussion of intension of size in the final treatise of the *Regule solvendi sophismata*; and the falling millstone (‘molarem’) in Marsilius of Inghen’s discussion of the point of transition from a projected object rising to falling back

⁴⁵⁰ Murdoch, ‘Propositional Analysis’, pp. 118-19. For further analysis of such problems, especially in the case of Richard Kilvington, one of the early Oxford Calculators, see Kretzmann, ‘Socrates is Whiter’. See also, Aristotle, *Physics*, VI, 235b, trans. by Hardie and Gaye, p. 397; and *Physics*, VIII, 263b-264a, p. 440.

⁴⁵¹ For a reading of lines 3187-91 of the Nun’s Priest’s Tale in the light of problems of ‘incipit et desinit’, see Travis, *Disseminial Chaucer*, pp. 287-97.

downwards again.⁴⁵² Pandarus's argument is clearly directed towards convincing Troilus of the fact that there must be a significant point of 'beginning' in a physical change – in this case the moment the oak starts to fall – and to imply that such changes are discrete and permanent, rather than continuous and capable of remission. Furthermore, his use of the adjective 'happy' (that is, by chance) reinforces the probability that Chaucer was also aware of the problem's classical context of the Aristotelian discussion of chance and spontaneity, as I noted above in relation to Chaucer's translation of Boethius. Pandarus argues that Criseyde might fall spontaneously and permanently in love. He seems to view her as a discrete variable like Troilus himself, whose heart 'with a look [...] wax a-fere' (I. 229), who 'wax sodeynly moost subgit unto love' (I. 231) and who 'sodeynly [...] wax ther-with astoned' (I. 274).

It seems that the example of a man suddenly loved may have been a recurrent 'casus' within fourteenth century logic: Buridan certainly uses the example repeatedly, in his *Tractatus de consequentiis* and in his *Summulae de dialectica*. In both cases, the example of 'homo amatur' ('a man is loved') is used in relation to problems of tense, centred around the fact that, 'in primo instanti amoris' ('in the first moment of love'), 'homo amatur' is a true statement; yet at the same instant, 'homo est amatus' ('a man is beloved' or 'a man was loved') will be in one sense an untrue statement. Buridan links 'amare' with other verbs that cause similar issues, such as the infamous problem-words, 'incipit' and 'desinit'.⁴⁵³ When the narrator of *Troilus and Criseyde* comes to discuss Criseyde's love for Troilus, Chaucer takes

⁴⁵² For the passage of Heytesbury in question (*De tribus predicamentis* (Venice: Bonetus Locatellus, 1494), fol. 45^v) and brief discussion, see Livesey, 'Mathematics', p. 13. For an interesting discussion of the imaginative examples devised by fourteenth-century logicians to disprove the Aristotelian position on the latter question, including the millstone and bean example from Marsilius, see Grant, *God and Reason*, pp. 170-71.

⁴⁵³ Buridan, *Tractatus de consequentiis*, 1. 8. 81-82. Paragraph and example numbers are given as in *Jean Buridan's Logic*, ed. by King, p. 216. King's translation is generously idiomatic in places and I do not follow him in translating 'instanti' here as referring to the *case* (or instance) of the loved man rather than to the first *instant* of love; amongst other things, because the case of the loved man is not the first of the two cases mentioned by Buridan in the paragraph, but the second, so for Buridan to refer to it as 'primo instanti' would be counterintuitive. Even so, the thrust of Buridan's argument remains unchanged. See also the *Summulae de dialectica*, 1. 6. 3. For an edition of the section of the *Summulae* in question, see Buridan, *Summulae de propositionibus*, p. 63. For an English translation, see Buridan, *Summulae de dialectica*, trans. by Klima, pp. 51-52.

pains to dismiss the possibility of an instantaneous change of heart. Instead he deliberately inserts a narratorial parenthesis that specifically addresses the problem of sudden emotional change: a passage that again has no original in the *Filostrato*. On the contrary, Boccaccio's Criseida 'subitamente presa fue' ('suddenly was she captivated').⁴⁵⁴ Chaucer's narrator, on the other hand, detects a potential problem with such an instantaneous (and seemingly spontaneous) change of feeling:

Now myghte som envious jangle thus:
 'This was a sodeyn love; how myght it be
 That she so lightly loved Troilus
 Right for the firste syghte, ye, parde?'
 Now whoso seith so, mote he never ythe!
 For every thing a gynnyng hath it nede
 Er al be wrought, withowten any drede.

For I sey nought that she so sodeynly
 Yaf hym hire love, but that she gan enclyne
 To like hym first, and I have told yow whi;
 And after that, his manhod and his pyne
 Made love withinne hire for to myne,
 For which by proces and by good servyse
 He gat hire love, and in no sodeyn wyse. (II. 666-79)

Here the narrator makes a *formal* rebuttal of the theory of 'sodeyn love'. 'For I sey nought' functions as the equivalent of the scholastic refutation: for instance, Wyclif's 'Respondeo negando'.⁴⁵⁵ Despite accepting the logical problem that 'every thing a gynnyng hath it nede', Chaucer's narrator takes care to address both the problem of instantaneous and of spontaneous change. He answers the charge of Criseyde's change from not loving to loving Troilus being discrete and instantaneous with the explanation that 'she gan enclyne / To like hym first' and came to fully love him 'by proces' and 'in no sodeyn wyse'. He then answers the charge of spontaneity with the claim that the causes of her change of heart have already been discussed ('I have told yow whi'). Later (IV. 829), Chaucer takes the opportunity to repeat this defence against the spontaneity of Criseyde's love from her own mouth,

⁴⁵⁴ Boccaccio, *The Filostrato*, II. 83, pp. 204-205.

⁴⁵⁵ Wyclif, 'Responso ad decem questiones magistri Ricardi Strode', in *Opera Minora*, pp. 398-404 (p. 401).

embellishing it with the explicitly logical terminology, ‘cause causyng’, a translation, as one early reader noticed, of the Latin ‘causa causans’ (the ‘primary cause in logic, as distinguished from a “causa causata” or secondary cause’, as the *Riverside Chaucer* helpfully explains).⁴⁵⁶ Chaucer’s insistence on this point provokes a striking contrast with the narratorial discussion of Troilus’s experience of falling in love, the suddenness and apparent causelessness of which leaves the narrator able only to exclaim, ‘Blissed be Love, that kan thus folk converte!’ (I. 308).

Chaucer continues, on the other hand, to emphasise the continuum of Criseyde’s ‘proces’ of falling in love with Troilus, even at the very moment of her decision to take the one undeniably discrete, objective and physical step in that whole process, the sexual act. Her reference to ‘dulcarnoun’, that is Euclid’s 47th proposition in Book I of the *Elements*, better known to us as Pythagoras’ Theorem, is usually simply interpreted in Criseyde’s own terms: ‘right at my wittes ende’ (III. 931). However, the proposition held a certain significance in late-medieval debates over the continuum, as Glending Olson notes:

Continuists often used geometrical examples to refute the indivisibilist approach, as in the following argument, which became popular after its appearance in Duns Scotus. Imagine a square with a diagonal drawn through it, thus creating two isosceles right triangles sharing a hypotenuse. Then imagine drawing all the possible parallel lines from every point on the left side of the square to every point on the right. Continuists argued that if there were a certain number of indivisible points constituting each side, then every line drawn across the square would have to pass at one and only one point through the diagonal, which means that it would have the same number of points and thus the same length as the sides. But that consequence, of course, violates any common-sense observation of isosceles right triangles, and more importantly violates *Elements* I. 47, the famous Pythagorean theorem, also known in later medieval England by its Latin nickname, *dulcarnon*, which Chaucer mentions in *Troilus and Criseyde* (III, 931, 933). ‘Dulcarnoun’ proves that the length of the hypotenuse of any right triangle is the square root of the sum of the squares of the length of the two other sides. In the case of an isosceles right triangle, the diagonal’s length is incommensurable with each side ($\sqrt{2}:1$),

⁴⁵⁶ A marginal gloss in British Library MS Harley 2392 supplies the Latin phrase. See Benson and Windeatt, ‘Manuscript Glosses’, p. 47.

inexpressible by any ratio of single (and hence of indivisible) units. Thus the idea that a line contains some given number of indivisible points leads to a geometric impossibility and must be wrong.⁴⁵⁷

Dulcarnon, in other words, was known as the geometric proof of the continuist view of processes of change, associated with Criseyde, as opposed to the more simplistic, indivisibilist approach, associated throughout the poem with Troilus and Pandarus: ‘these [geometric] arguments, too, had to be answered by the medieval indivisibilist, but in attempting to answer them he was often forced [...] to reveal himself quite incompetent to deal with the mathematics at all’.⁴⁵⁸

Wyclif himself addresses ‘illam famosam racionem contra dictam opinionem de compositione continui ex non quantis, qua probatur ex illa sequi quod omnis dyiameter quadrati sit equalis suo lateri’ (‘that famous argument against said opinion concerning the composition of a continuum out of points of no quantity, by which it is proven that it follows from the [indivisibilist position] that every diagonal of a square would be equal to its side’);⁴⁵⁹ and despite maintaining his position against three objections of his opponents with vigour, if not with watertight logic, even he ultimately claims only that ‘nec scio adhuc aliquam istarum 3^m responsionum efficaciter improbare’ (‘I do not know of anything that effectively disproves my three responses [to these objections]’): thus he accepts, as it were, an epistemological tie.⁴⁶⁰ Rather, he recommends, ‘nec verecundetur quantumlibet subtilis philosophus fatere propriam ignoranciam in quotlibet particularibus, specialiter de finitate nature’, since ‘in quibus omnibus dicimus quod Deus ordinat istos propter melius ordinis universi’ (‘the clever philosopher ought not to feel at all ashamed to admit his own ignorance in however many particulars, especially concerning the finitude of nature’ since

⁴⁵⁷ Olson, ‘Measuring the Immeasurable’, p. 417.

⁴⁵⁸ Murdoch, ‘Infinity and Continuity’, p. 579.

⁴⁵⁹ Wyclif, *Tractatus de Logica*, III, pp. 53-54.

⁴⁶⁰ Wyclif, *Tractatus de Logica*, III, p. 57.

‘in all of these things we say that God orders them for the better order of the universe’).⁴⁶¹

The same faith in God’s ordinance that necessitates an indivisibilist system also provides intellectual comfort when we face the limitations of that system in ‘getting the measure’ of the real world.

Whether Pandarus’s subsequent confusion of this proposition with the *fuga miserorum*, ‘fleming of wrecches’ (III. 933: Euclid I. 5) is indeed intended to illustrate his mathematical incompetence and thus his inability to cope with the more sophisticated model of the universe that ‘dulcarnoun’ suggests; or whether it is intended to associate in the minds of the audience the fluid continuum of Criseyde’s emotional development with her own later *miserable flight* and the consequent remission of her love for Troilus; or whether it is merely an example of exactly the sort of technical mistake Chaucer hoped his logician friend Strode would endeavour to ‘correcte’ for him (V. 1858), must remain uncertain. One other possibility does present itself, however. Bradwardine, in his treatise on *Insolubilia* uses the phrase ‘fuga miserorum’ to dismiss a solution to the two-stage Liar paradox that he regards as simplistic.⁴⁶² It seems, therefore, that the term could be used to ridicule bad logic as well as bad mathematics. Whatever its exact force, it is generally fair to say that Chaucer is particularly interested in using logical ideas about limits and continua as a context for the problematisation of Criseyde’s emotions.

The Departing

Chaucer seems deliberately to cultivate a dichotomy between Troilus’s simple or ‘discrete’ character and experience of love, which reflects his simplistic logic, and Criseyde’s more ‘continuous’, composite or fluid personality and emotions. The difference between the two characters is, as we might expect, most explicit in the final book, where Chaucer juxtaposes

⁴⁶¹ Wyclif, *Tractatus de Logica*, III, p. 56.

⁴⁶² Bradwardine, *Insolubilia*, pp. 80-81.

their descriptions. The description of Troilus emphasises his steadfastness of character, implying a timeless unchangeability in its use of tense:

Trewe as stiel in ech condicioun,
Oon of the beste entecched creature
That is or shal whil that the world may dure. (v. 831-33)

Even Chaucer's careful use of tense here ('is or shal') gives a quasi-logical precision to his proposition of Troilus's consistency.⁴⁶³ Criseyde, on the other hand, is famously described as 'slydyng of corage' (v. 825); and it is no anachronism to detect in the adjective the implication, not merely of changeableness, but also of a fluidity of change; and with it the register of natural philosophy.⁴⁶⁴ One definition the MED gives to the verb '*to slide*' is 'of a fluid: to flow, ooze', and so the adjective in Middle English, just as in modern English, suggests a smoothness of change. Even the MED's examples of the simple definition 'to change, to undergo a change' are noteworthy in the context of the above discussion of problems of heat remission; for instance, that from an early fifteenth-century manuscript, Glasgow, University Library MS Hunterian 95: 'synewes of her owne naturel complexioun ben sliden to naturel colde fro attemperaunce'.⁴⁶⁵ It is Criseyde's sliding, continuous nature that prompts the imagery of temperature variation, as it creates the need for Chaucer to find a means of communicating the difficulty of somehow measuring, or getting a grip upon, a world of human experience subject to fluid, rather than merely discrete and binary, change. The struggles of the statutorily masculine schools to somehow measure and classify physical,

⁴⁶³ See a more detailed discussion of this characteristic of logical propositions in relation to Gower's *Confessio Amantis* in Chapter 3.

⁴⁶⁴ Jelena Marelj has recently argued for an understanding of Chaucer's presentation of Criseyde as an attack on fourteenth-century 'nominalism' (for a summary of my own hesitations about such 'nominalism-centred' criticism, see the Introduction). Her general focus on 'nominalism' leads Marelj to conclude that 'Criseyde has a weak will', 'does not care for moral edification', is too focused on 'particulars' and the pleasures of the moment, and thus 'easily succumbs to the temporal, fragmentary world because she has no guiding moral principles that can lead her beyond the mutability and multiplicity'. See Marelj, 'The Philosophical *Entente* of Particulars', pp. 219-20. An awareness of the poem as a reaction to the quasi-determinist, indivisibilist (and, incidentally, realist) Wyclif allows a vastly more sympathetic reading, as I hope to demonstrate. Neil Cartlidge, approaching the text from a different angle, has similarly argued for a Criseyde of a rather stronger and freer mould: 'Criseyde's Absent Friends', esp. pp. 242-45.

⁴⁶⁵ See MED, 'sliden', v. 3d and 3f.

emotional and volitional processes of change must have seemed, and seem still, a singularly effective analogy for the inability of the poem's 'black and white' male protagonist to come to terms with a stereotypically more feminine emotional variability.

As a composite continuum of dissimilar parts which cannot be clearly demarcated or, to use Chaucer's term from the Summoner's Tale, 'departed' (III. 2214), Criseyde is like the *chimera*, the archetypal image of logical problematics, or like Pandarus's monster, the hybrid with a fish's body, an ass's feet and an ape's head. I have discussed above how some fourteenth-century logicians, such as Buridan, attempted to 'chop up' the chimera into its various bodily components in order to get a referential (or suppositional) handle on it, just as Jankyn devises a system for dividing up the fart. Similarly, I have discussed how Chaucer is concerned with processes of change, and whether it is possible to cut up the continuum of time, as Troilus (and Wyclif) wanted to do, in order to find a specific moment at which an action, such as Criseyde falling in love, really begins. Criseyde is, in that sense, a sort of chimera herself – she is a fantastical monster of a kind that Troilus cannot even conceive. It is significant, therefore, that Holcot, in his commentary on the Twelve Prophets, explains that the chimera is to be understood as an image exactly of Criseyde-like figures: 'chimera enim interpretatur idem quod fluctuans in amore' ('for the chimera is interpreted as one fluctuating in love').⁴⁶⁶ The most persistent image of *logical* paradox is thus also an image of the paradoxical workings of love and the difficulty of pinning down or classifying those who are inconstant.

We see again Troilus's inability to comprehend Criseyde's essential fluidity, immeasurability and composite nature when Troilus finally accepts, but cannot really understand, the fact that Criseyde's love for him has diminished over time to nothing. Whilst he is making an almost geometric study of Diomedes's 'cote', 'avysyng of the lengthe and of

⁴⁶⁶ See Smalley, *English Friars*, p. 173, citing Oxford, Bodleian Library MS Bodley 722 (SC 2648), fol. 18.

the brede' (v. 1657), he sees the brooch he gave Criseyde, and 'ful *sodeynly* his herte gan to colde' (v. 1659: my emphasis: again, the temperature image is Chaucer's own). The physical evidence finally convinces him of Criseyde's unfaithfulness, and prompts him to complain to Pandarus of 'hire hertes *variaunce*' (v. 1670: my emphasis). Yet he still cannot understand what has happened in any but his own, simplistic and discrete terms: love and 'unlove'.

Thorough which I se that clene out of youre mynde
Ye han me cast – and I ne kan nor may,
For al this world, withinne myn herte fynde
To unloven yow a quarter of a day! (v. 1694-1698)

To Troilus, Criseyde's feelings seem to have instantaneously and spontaneously changed: and since his philosophy is not sophisticated enough to appreciate that her emotions have always been the result of 'proces', and that not even gradual but 'slydyng', he can no more deal with it than he could with the *sophismata* that black will be white, or hot will be cold. No more can Pandarus, who for once is struck dumb, 'astoned', 'as stille as ston; a word ne kowde he seye' (v. 1728-29). For it was he who encouraged Troilus to see the world as composed simply of 'contraries' (l. 645): 'whit by blak' (l. 642). Neither can comprehend Criseyde's behaviour since that behaviour is irreconcilable with their own simplistic model of emotional processes.

The End of Troilus

However, Chaucer's generous humanity and the fullness of his characterisation certainly prevent Troilus from merely fulfilling a philosophical function in the poem. He has won our pity in spite of, and perhaps in part *because of*, his intellectual flaws; and even in philosophical terms, Chaucer gives us reason to *hope* for him. At the close of his deterministic soliloquy, Troilus prays to Jove, asking either for death or for a resolution of the crisis. If, as Strode argued, it would be illogical for a predestined reprobate even to hope for his salvation, then, as Holcot argued, certainly 'non debet pro se orare' ('he ought not to pray

for himself’): thus Troilus’s prayer still suggests a glimmer of hope.⁴⁶⁷ Then, although Troilus later seeks his death on the battlefield, he does not technically commit suicide, the ultimate act of despair, despite drawing his sword when Criseyde faints (IV. 1184-90). Furthermore, logicians like Holcot were considering the case of a man whose fate is irresistibly revealed to him by God. Troilus *is* given a divine revelation of Criseyde’s infidelity first through his dream and then through Cassandra, but he utterly rejects it: “‘Thow seyst nat soth,” quod he, “thow sorceresse, / With al thy false goost of prophecy!”” (v. 1520-21). This suggests that he would rather ‘gon to helle’ than doubt his lady (v. 1532). Troilus, in fact, only really despairs of Criseyde when he sees her brooch on Diomedes’s tunic, and even then he does not fail in charity, swearing that ‘yow, that doon me al this wo endure, / Yet love I best of any creature!’ (v. 1700-1701).

What, finally, of the end of Troilus, which Chaucer fits into the Christian conclusion of the poem after the envoy?

And in hymself he lough right at the wo
 Of hem that wepen for his deth so faste,
 And dampned al oure werk that foloweth so
 The blynde lust, the whiche that may nat laste,
 And sholden al oure herte on heven caste;
 And forthe he wente, shortly for to telle,
 Ther as Mercurye sorted hym to dwelle. (v. 1821-27)

The nature of Troilus’s laugh is one of the great enduring ambiguities of English literature. Our appreciation of it is perhaps dependent upon the even more glaring ambiguity of the final line: where exactly was Troilus ‘put’ after his death? In contrast to ‘heven’ to which we *should* aspire, the introduction of the rhyme word ‘telle’, in the first line of the next couplet, sets up an expectation that by the end of the next line, Troilus will have been assigned to ‘hell’: yet the expectation is subsequently undercut. Again, in line 1823, our ‘werk’ may be ‘dampned’: but are we to understand from Chaucer’s use of the word that Troilus is damned

⁴⁶⁷ Holcot, *Seeing the Future*, p. 191.

too? Why, in that case, should we not ‘wepen for his deth’? Perhaps after all Troilus escaped damnation. Having teased us with contrary insinuations and ambiguities, Chaucer ultimately does not tell us, and that is the point. As Frank Grady argued, throughout the poem the audience has been almost oppressed with our own quasi-divine prescience of Troilus’s ‘sorwe’ and Criseyde’s infidelity.⁴⁶⁸ Her behaviour and his reaction to it were, in that sense, authorially fore-ordained; but Troilus’s ultimate fate is, from the point of view of the audience, undecided even to the end. Contingency, not necessity, has the last laugh in the poem. For all our apparent foreknowledge, we are left only with the advice given to us back at the beginning: ‘And preieth for hem that ben in the case / Of Troilus, as ye may after here, / That Love hem brynge in hevne to solas’ (i. 29-31). As for the paradoxes generated by God’s omniscience of an infinitely divisible universe and a contingent future, they take root in, and can only find resolution in, the ‘oon, and two, and thre, eterne on lyve, / That regnest ay in thre, and two and oon, / Uncircumscript, and al maist circumscribe’ (v. 1863-65): the Godhead that limits all things but cannot itself be limited, by necessity or anything else.

⁴⁶⁸ See Grady, ‘The Boethian Reader’. As Susan Schibanoff puts it, Chaucer is ‘our Cassandra’: Susan Schibanoff, ‘Criseyde’s “Impossible” Aubes’, p. 330.

CHAPTER 3:

CAUSATION AND THE FUTURE IN THE

CONFESSIO AMANTIS

In this chapter, I argue that the interest in maths, logic and logico-literary tropes that I have identified in Chaucer can also be found in the work of another member of the London literary ‘circle’ of his time, John Gower, and that both may have actually shared one means of access to scholastic logic, namely the friendship of Ralph Strode. I also argue that, despite his ‘moral’ label, Gower has just as much to say about the problem of future contingency as Chaucer, and that he too could be regarded as working at the logico-mathematical ‘cutting edge’.

Chaucer’s Dedicated Friends: Gower and Strode

O moral Gower, this book I directe
To the and to the, philosophical Strode. (v. 1857)

Thus Chaucer dedicates *Troilus and Criseyde* to Gower and Strode, whom he mutually opposes even as he places them in parallel. These two lines are potentially significant for a critical understanding of Gower’s work for two reasons: first, because of the implications of the parallel for Gower’s own probable friendship with Strode; second, because Chaucer’s ‘pigeon-holing’ of Gower as ‘moral’, as opposed to ‘philosophical’, has led critics to overlook aspects of Gower’s writing by the conscious or unconscious application of a distinction that Gower himself, I believe, ultimately rejected. One such example would be R. F. Yeager’s portrayal of a rather solid ‘moral’ Gower, repeatedly contrasted to the ‘sliding’

nature of Chaucer's poetry in *Troilus and Criseyde*.⁴⁶⁹ I have already explored the ways in which such Chaucerian 'sliding' could be interpreted as a sophisticated interrogation of contemporary logical, mathematical and theological concerns. My analysis of Gower will aim to demonstrate that his interaction with the same concerns was equally robust.

That Strode was a 'friend' of Gower is almost ubiquitously assumed on the basis of their both being members of a critically constructed 'Chaucer's circle'.⁴⁷⁰ I see no reason for doubting this speculation, although on this evidence alone it *is* mere speculation – it is quite possible for a man to have two friends who are mutually ignorant of each other. However, there is, apart from Chaucer's dedication, good reason to suppose that Gower and Strode knew each other, and that they would have had plenty to talk about. For one thing it is almost certain that the two would have known each other professionally, as civil officers of some sort. John Fisher persuasively argues for Gower's legal profession, in spite of the 'bitterness of [his] denunciations' of the vices of lawyers. He deduces from Gower's admission, in the *Mirour de l'Omme*, to wearing 'a garment with striped sleeves' ('ai vestu la raye mance': 21774), that he was probably a court or other corporation official, adding that 'Ralph Strode was Common Sergeant during the 1370s, and so would have been covered by such a custom'. He concludes that in Gower's writing,

specific allusions bespeak a firsthand [legal] knowledge [...], the reference to rayed sleeves suggests a professional involvement in the law, and the criticisms of the profession might just as well come from an outraged member of the fraternity as from an outsider. [...] Gower's description of the training of the lawyer, the degree of coif, and the privileges of serjeancy (MO, 24373), and his technical descriptions of the functions of the *plaidour*, *client*, *tort*, *deslayment*, *cas* (MO, 24206), *advocat* (24258), *president*, *apprentis*, *attourné* (MO, 24794) accord well with the early state of the profession.⁴⁷¹

⁴⁶⁹ See Yeager, "'O Moral Gower'".

⁴⁷⁰ Fisher, *John Gower*, p. 81 (Fisher does not unquestioningly accept the identity of the London and Oxford Strodes); Kuczynski, 'Gower's Virgil', p. 163.

⁴⁷¹ Fisher, *John Gower*, pp. 55-57.

If Fisher's deductions are correct, Gower's profession would have certainly encouraged a fairly thorough acquaintance with Ralph Strode, and there is every reason to suppose that Strode in turn would take an active interest in Gower's writing. After all, for over a decade Strode 'prosecuted victuallers, vintners, and artisans on behalf of the Corporation for exactly the sort of fraud that Gower criticized in the *Mirour de l'Omme*.'⁴⁷²

Almost a century ago Ernest Kuhl pointed out another probable connection between the two, again through Chaucer, but this time in relation to more worldly affairs:

It has been pointed out that Strode, as Standing Counsel for the City in which he was to plead for the orphans and the like, had had abundant experience as Common Pleader. Chaucer students will recall that in 1375 the poet was made guardian of the heirs of Edmund Staplegate, of Canterbury and of John (de) Solys, of Kent. Is it not possible that Chaucer owed his appointment – indirectly, to be sure – to his friend Strode? [...] However that may be, we may be pretty certain that the two men often discussed matters pertaining to guardianship. [//] In connection with the Staplegate affair can be mentioned the name of another person inseparably linked with *Troilus and Criseyde* – John Gower. In 1386 and 1387 John Gower and Edmund Staplegate were among the purveyors of victuals at Dover Castle. Macaulay points out this fact but does not say it is the poet Gower. In view of the fact that Staplegate is his associate, the probabilities are that it is Gower the poet. Simon Burley, the Queen's favorite, was constable of Dover Castle at this time. Accepting these statements, then, we are forced to the conclusion that *Troilus and Criseyde* was dedicated to two friends who were members of the King's faction.⁴⁷³

Leaving aside Kuhl's speculation about the involvement of the men in court factions, these facts do further increase the probability that Gower and Strode knew each other and would have had a wealth of shared interests, even business interests.

The Philosopher's Poem

Perhaps the most interesting and certainly the most contested evidence of Gower's association with Strode is literary. The sixteen-line Latin verse known generally by its

⁴⁷² Fisher, *John Gower*, p. 62.

⁴⁷³ Kuhl, 'Some Friends of Chaucer', pp. 275-76.

opening words, 'Eneidos, Bucolis', purports to be a commendatory poem sent to Gower by a certain philosopher:

Carmen, quod quidam Philosophus in memoriam Iohannis Gower super consummatione suorum trium librorum forma subsequenti composuit, et eidem gratanter transmisit.

*Eneidos, Bucolis, que Georgica metra perhennis
Virgilio laudis serta dedere scolis;
Hiis tribus ille libris prefertur honore poetis,
Romaque precipuis laudibus instat eis.
Gower, sicque tuis tribus est dotata libellis
Anglia, morigeris quo tua scripta seris.
Illeque Latinis tantum sua metra loquelis
Scripsit, ut Italicis sint recolenda notis;
Te tua set trinis tria scribere carmina linguis
Constat, ut inde viris sit scola lata magis:
Gallica lingua prius, Latina secunda, set ortus
Lingua tui pocius Anglica complet opus.
Ille quidem vanis Romanas obstupet aures,
Ludit et in studiis musa pagana suis;
Set tua Cisticolis fulget scriptura renatis,
Quo tibi celicolis laus sit habenda locis.*

(A poem, which in remembrance of John Gower a certain philosopher composed in the following form and happily sent to the same man, to commemorate the completion of his three books.

The meters of the *Aeneid*, *Bucolics*, and *Georgics*, woven together
By Virgil, have given matter of perennial praise to the schools.
On account of these three books he is preferred in honor over all poets,
And Rome bestows upon them its chief praises.
Thus, too, O Gower, with your three little books is England endowed,
Where you accommodate your writings to serious things.
He wrote his poems only in the Latin tongue,
So that they might be appreciated by the famous Italian worthies.
But it is clear that you wrote your three poems in three languages,
So that broader schooling might be given to men.
First the French tongue, Latin second, then at last English,
The speech of your birth, completes the work.
He indeed astounded the ears of the Romans with vanities,
And the pagan Muse played in his studies.
But your writing glows for reborn Christians,
Whereby praise will be given you in heavenly places.)⁴⁷⁴

⁴⁷⁴ 'Eneidos, Bucolis', in *Gower: Latin Works*; the translation is that of R. F. Yeager, provided in this edition.

In a note to his edition of the poem, Macaulay ‘ventured on the conjecture that this philosopher was in fact Ralph Strode, whom Chaucer couples with Gower in the last stanza of the *Troilus* with the epithet “philosophical”, and of whom we know by tradition that he wrote elegiac verse’.⁴⁷⁵ Macaulay’s casual reference to Strode’s apocryphal poetic efforts might in itself be enough to frighten off critics who recall Israel Gollancz’s suggestion that Strode was the true author of *Pearl*.⁴⁷⁶ Nevertheless it is not at all unlikely that Ralph Strode wrote some Latin verse: ‘a 1422 list of Merton Fellows includes a “Strood” who composed a poem, now lost, entitled *Phantasma Radulphi*’, the title of the piece and the name of author in conjunction suggesting that Ralph Strode composed the piece.⁴⁷⁷ As a result, Strode’s authorship of the ‘Eneidos, Bucolis’ was for a long time, and remains to an extent today, ‘the usual assumption’.⁴⁷⁸

The poem itself lends some limited support to this speculation in two ways. First, there is the repeated emphasis on ‘the schools’ and ‘schooling’. The first five lines imply that just as Virgil’s poetry ‘perhennis [...] laudis [...] dedere scolis’ (‘have given matter of perennial praise to the schools’), so too with Gower (‘Gower sicque’). In other words, Virgil was praised by the schoolmen of his day, and now, in this very poem, Gower is praised by a schoolman, ‘quidam Philosophus’, of his own day. The second reference to the schools goes even further: ‘Te tua set trinis tria scribere carmina linguis / Constat, ut inde viris sit scola lata magis’ (‘But it is clear that you wrote your three poems in three languages/ so that broader schooling may be given to men’). As Michael Kuczynski puts it,

Roman schoolmen and worthies venerated Virgil. [...] But unlike Virgil’s audience of literati, Gower’s cuts across the medieval classes or estates: churchmen (those who read Latin), polite members of the aristocracy (who can appreciate French), and – a rapidly expanding

⁴⁷⁵ Gower, *Complete Works*, IV, p. 419.

⁴⁷⁶ See Fisher, *John Gower*, p. 61.

⁴⁷⁷ Yeager, ‘John Gower’s Audience’, p. 104 (note).

⁴⁷⁸ Yeager, ‘John Gower’s Audience’, p. 104 (note).

group in the second half of the fourteenth century – those capable of reading only the vernacular.⁴⁷⁹

Kuczynski's summary is neat, but rather misses the point. These lines are not just commending Gower's accessibility; they are suggesting that Gower's poetry is itself the vehicle for spreading *scholastic* knowledge ('scola') to the masses, even to those who know no Latin, the language of scholastic discourse. The anonymous poet's concern with the scholastic element of Gower's writing obviously lends support to the hypothesis that he is himself a man of the schools, and a man with an interest in how literature treats and popularises scholastic concerns. By far the most likely candidate amongst Gower's known acquaintances is therefore surely Strode, a man famous not only for his logical writings but also for his role as Gower's 'co-corrector' of the *Troilus*.

There is another piece of internal evidence to suggest that Strode is the author, in line 6: 'morigeris quo tua scripta seris'. R. F. Yeager seems to allow various possible translations of this clause. In his edition of the poem, he translates it, 'where you accommodate your writings to serious things' (given above). In the translation given in Kuczynski's chapter of *On John Gower: Essays at the Millennium* (edited by Yeager), the line is rendered, 'You accommodate yourself to the one to whom you disseminate your writings'.⁴⁸⁰ Both translations miss, in my opinion, the most significant aspect of the line, which Yeager himself acknowledges in passing in a footnote to his essay on 'Moral Gower': 'in addition to the comparison with Virgil, we find Gower described as "morigeris"' [sic].⁴⁸¹ In their translations, both Yeager and Kuczynski seem to understand 'morigeris' in terms of the older Latin usage of the verb 'morigeror': 'to be compliant or indulgent to'.⁴⁸² However in his note Yeager is, I think, closer to the mark: 'morigeris' is almost certainly from the adjective 'moriger(us)', which in medieval Latin came to mean, not compliant or accommodating, but

⁴⁷⁹ Kuczynski, 'Gower's Virgil', pp. 163-64.

⁴⁸⁰ Kuczynski, 'Gower's Virgil', p. 163.

⁴⁸¹ Yeager, "'O Moral Gower'", p. 99 (note).

⁴⁸² OLD, 'morigeror'.

‘informed with good character’, that is ‘with good morals’.⁴⁸³ The line should therefore probably be translated something like, ‘where you sow your writings with moral things’. Gower’s poetry, the anonymous poet asserts, is characterised especially by being ‘moral’ in nature. It seems highly plausible that Strode, conscious of the epithets of the *Troilus*, should have chosen thus to commend his friend: from a philosopher to a moralist. Such a reading is all the more likely if Derek Pearsall is right to detect in the poem a resonance of, or even a bid to outdo, Chaucer’s presentation of himself in the envoy of the *Troilus*: ‘[“Eneidos, Bucolis”] represent[s] the English poet in an extraordinary light, not merely kissing the steps on which the classical poets stand, which is what Chaucer modestly advises his book of *Troilus* to do, but clambering up them’.⁴⁸⁴ If the poem does indeed contain deliberate echoes of Chaucer’s envoy, then the silhouette of the ‘philosophus’ takes on the features of Ralph Strode very strongly.

Thus on internal evidence alone, Strode’s authorship of the ‘Eneidos, Bucolis’ must be considered probable. Indeed, the poem itself may be regarded as evidence of the closeness of Gower’s friendship with the Oxford logician; and if this is accepted, it must be allowed that ‘many of the philosophical generalizations in [...] Gower’s works [...] could have originated with him’.⁴⁸⁵ If Strode was indeed the author of the ‘Eneidos, Bucolis’, it seems clear that he played audience, and perhaps even ‘corrector’, to Gower’s work just as he did to Chaucer’s. Critically, then, we may apply the same kind of logical and ‘scientific’ scrutiny to the *Confessio Amantis*, reading it with the eye of the ‘philosophus’, as I have applied to Chaucer’s *Troilus*.

Nevertheless the authorship of the ‘Eneidos, Bucolis’ has always been regarded as uncertain. Macaulay, in spite of his attribution of it to Strode, included it in his edition of

⁴⁸³ See *Dictionary of Medieval Latin*, ‘morigerus’; see also the corresponding verb form, ‘morigerare’.

⁴⁸⁴ Pearsall, ‘Gower’s Latin’, p. 24. Pearsall argues for Gower’s authorship of the poem, which I will discuss below.

⁴⁸⁵ Fisher, *John Gower*, p. 61.

Gower's Latin works, an 'unusual editorial maneuver [sic] [which] indicates ambivalence on Macaulay's part as to Gower's hand in the poem'.⁴⁸⁶ Recent critical opinion seems to favour possible Gowerian authorship of the poem. Amongst others, 'Derek Pearsall has suggested that the lines may have been "solicited, or composed by Gower himself"'.⁴⁸⁷ The reasoning behind this shift is largely chronological. By praising Gower's English work, the poet seems to imply a knowledge of the *Confessio Amantis*, especially given the ironic reference to the 'tribus [...] libellis', which acts, 'like most modesty topoi, [...] at once to deprecate and to elevate the author in the reader's esteem'.⁴⁸⁸ Such a conceit of 'modesty' can only really function in an authorial, rather than a critical evaluation, however friendly. Gower's only 'book' of English poetry that could even compare in stature to the *Mirour de l'Omme* and the *Vox clamantis* is the *Confessio*, the first recension of which was not completed until 1390. The problem is that Strode, 'the London lawyer, [...] died in 1387, perhaps too early to have written *Eneidos, Bucolis*'.⁴⁸⁹

The poem itself does not necessarily imply that the *Confessio* was already finished. Indeed, the use of the present tense of the verb 'compleo' in line 12 leaves open the tantalising possibility that the book 'lingua [...] Anglica' may have been a work in progress. It must be granted that the reference to 'Avynoun' in line 331 of the Prologue to the *Confessio*, and its accompanying marginal reference to 1390

would appear to set a date before which the first version cannot have been completed. However, a poem so long must have been some time in process, and [...] the account of the meeting with Richard in the Prologue and the allegorical portions of Book I (lines 1-288) and Book VIII (lines 2149-2940) are closely related to Chaucer's *Legend of Good Women* and appear to date from about 1385.⁴⁹⁰

⁴⁸⁶ 'Eneidos, Bucolis', in *Gower: Latin Works*; see also Gower, *Complete Works*, IV, p. 361.

⁴⁸⁷ Kuczynski, 'Gower's Virgil', p. 163.

⁴⁸⁸ Kuczynski, 'Gower's Virgil', p. 164.

⁴⁸⁹ Yeager, 'John Gower's Audience', p. 104 (note); see also *The Riverside Chaucer*, p. 1058: 'his will is lost, but recorded'.

⁴⁹⁰ Fisher, *John Gower*, p. 116.

It is therefore still possible that Strode knew enough of the *Confessio* by 1387 to have anticipated its publication in the ‘Eneidos, Bucolis’. Nevertheless, both the use of the past tense elsewhere in the poem (‘tuis tribus *est dotata* libellis / Anglia’ (‘with your three little books England is [or was] endowed’)) and the unequivocal statement of the colophon that the poem was composed ‘super *consummacione* suorum trium librorum’ (‘upon completion of his three books’ (my translation)) seem to rule out the possibility that the *Confessio* was as yet unfinished. It must be conceded, of course, that by its own account the colophon does not form part of the original text of the commendation, being in the third person. It is still possible, therefore, that its statement concerning the circumstances of composition contains later inaccuracies; but again this seems unlikely. ‘*Eneidos bucolis* [...] appears in five manuscripts (including two that Gower may have overseen in production, S and F),⁴⁹¹ and ‘while none of these manuscripts is a holograph, they can all be connected with Gower and, as Macaulay explains, all of them display evidence of carefully managed authorial revision’.⁴⁹² For instance, ‘The All Souls copy of the *Vox* [which also contains the ‘Eneidos, Bucolis’], Macaulay observes, was “certainly written and corrected under the direction of the author, and remained sometime in his hands, receiving additions from time to time”’.⁴⁹³

Furthermore, Macaulay makes a not unreasonable assumption when he speculates that ‘the author is probably the same as that of the four lines “Quam cinxere freta,” &c., appended to the *Confessio Amantis*, which are called “Epistola super huius opusculi sui *complementum* Iohanni Gower a quodam philosopho transmissa”’ (my emphasis).⁴⁹⁴ Once again the verse itself offers no definitive information:

Quam cinxere freta Gower tua carmina leta
 Per loca discreta canit Anglia laude repleta.
 Carminis Athleta satirus tibi sive Poeta
 Sit laus completa quo gloria stat sine meta.

⁴⁹¹ ‘Eneidos, Bucolis’, in *Gower: Latin Works*.

⁴⁹² Kuczynski, ‘Gower’s Virgil’, p. 162.

⁴⁹³ Kuczynski, ‘Gower’s Virgil’, p. 183 (note); citing Gower, *Complete Works*, IV, p. 361 and p. lxi.

⁴⁹⁴ Gower, *Complete Works*, IV, p. 361 and p. 419.

(O Gower, enclosed by the sea and filled with praise
England, throughout many regions, recites your joyous poetry.
Master of verse, satirist – or poet – for you
May praise be full where glory stands without end.)⁴⁹⁵

It is also not entirely clear that the phrase in the colophon, ‘super huius opusculi sui complementum’ must necessarily refer to the *Confessio*; but once again the contextual evidence points very strongly in that direction. If the *Confessio* was completed only in 1390, Strode’s authorship seems unlikely.

Philosophical Gower?

We are left with two reasonable possibilities regarding the authorship of ‘Eneidos, Bucolis’: either Ralph Strode was indeed its author, most probably along with ‘Quam cinxere freta’, and Gower deliberately misapplied his commendations to the completed *Confessio*, a work which Strode could not have known in completion; or Gower himself penned two commendations purporting to be written by a ‘philosophus’ friend, probably with the conscious intention that certain of his audience would *infer* Strode’s approbation of his work. Either way the implications of the text are not straightforward, and ‘either way, Gower seems to have made sure that this Latin encomium to his achievement appeared in multiple, textually sound, and well-designed copies of his work intended for circulation amongst dignitaries, in effect publicly endorsing its views of his poetic character’.⁴⁹⁶

But why exactly was such an endorsement, real or otherwise, so important to Gower? Why, perhaps we should rather ask, did Gower consciously choose thus to shape his audience’s reaction to his text, as the sort of book a schoolman, or even particularly a logician, would enjoy and consider a source of ‘scola’? In order to understand this, I think we need to return to our starting point: the dedication of the *Troilus*.

⁴⁹⁵ Text and translation given in ‘Eneidos, Bucolis’, in *Gower: Latin Works* (note).

⁴⁹⁶ Kuczynski, ‘Gower’s Virgil’, p. 163.

Chaucer's distinction between 'moral Gower' and 'philosophical Strode' was by no means a new one:

These epithets correspond to the conventional distinctions made first by Aristotle in the *Nicomachean Ethics*: 'Now, on this division of the faculties is based the division of excellences; wisdom and understanding and prudence we call intellectual, liberality and temperance we call moral virtues or excellences.' In Quaestio LVIII of the *Summa Theologica*, 'Of the Distinction of Moral Virtues from the Intellectual,' St. Thomas repeats the distinction: 'If virtue perfects man's speculative or practical intellect in order that his action may be good, it will be intellectual virtue: if it perfects his appetitive part, it will be moral virtue'.⁴⁹⁷

Chaucer is perhaps merely categorising two fellow writers according to a well-established distinction. Nevertheless, 'philosophical' is not necessarily identical with 'intellectual'; it is perhaps more precise, suggesting an interest in the logical approaches of the fourteenth-century schools to various controversies, both 'scientific' and theological:

To Chaucer 'philosophical' denoted speculative and intellectual excellence. Of the forty-four uses of the various forms listed in the concordance, nineteen refer specifically to natural science. [...] Judging by these meanings, Strode would have been expected to be interested in the astronomical and astrological lore [...] in *Troilus* [...]. Most especially, he would have appreciated the Boethian treatments of necessity and free will, false felicity, fortune, and destiny.⁴⁹⁸

However, the problems surrounding astrology, fortune, necessity, false felicity and destiny are also central to the *Confessio*, and Gower's treatment of them is innovative and daring, as I shall later argue.

By dedicating the *Troilus* to Strode and Gower, Chaucer is highlighting some aspects of the interpretative possibilities implicit in his own work:

In Gower and Strode, Chaucer invokes what might be considered a 'special interpretative community' within the larger community comprised by his whole contemporary audience. The two are a particular subset of his larger audience, designated to reinforce or complete a meaning that Chaucer wishes his passage to have. Here,

⁴⁹⁷ Fisher, *John Gower*, p. 225.

⁴⁹⁸ Fisher, *John Gower*, p. 225.

concerned to advance a moral/philosophical perspective from which Troilus is seen as free to choose divine love over earthly pleasure, Chaucer finds ‘audience’ by directing his words to those members of his circle most likely to understand his words as he wants them understood.⁴⁹⁹

In other words, the point is much less that Strode should read the *Troilus* than that the audience should be aware that such a ‘Strodean’ reading, as well as a ‘Gowerian’ one, is both possible and authorially intended. But in applying the traditional distinction to Gower in this way, Chaucer’s dedication, whether intentionally or not, limits their shared audience’s appreciation of Gower’s work to the purely ‘moral’.

I would therefore argue that, whether by simply advertising or by effectively inventing a ‘Strodean’ commendation of the *Confessio*, the ‘Eneidos, Bucolis’ represents Gower’s attempt to recover for his audience the ‘philosophical’ dimension of his own work. Indeed, if Gower did compose the ‘Eneidos, Bucolis’, and perhaps even the ‘Quam cinxere freta’, then he is, in some sense, the ‘philosophus’ himself. As Yeager points out,

it would not be the first or only time that he adopted a ‘philosophical’ detachment to comment on himself in the third person. The chapter headings in *VC* [and ...] the address/prayer prefacing the dedication of *S* to Archbishop Arundel [...] come to mind; and, although their level of invention is less than creating an alterego to praise one’s own achievement, the Latin note at *CA* I.60 ff., ‘fingens se auctor esse Amantem’ [‘the author feigning to be the Lover’], strikes closer. [...] If *Eneidos bucolis* is by Gower, it presents an advance on his demonstrated fictive self-fashioning, but not an inconceivable one; and it would tell us much about how he wished to situate himself *memoria in aeterna*.⁵⁰⁰

In the ‘Eneidos, Bucolis’, then, Gower partially collapses the distinction between ‘moral’ and ‘philosophical’, between ‘morigerus’ and ‘philosophus’, with which Chaucer had unfortunately trapped him. The *Confessio* is indeed well sown with morally instructive things, but it is equally the sort of book Strode might recommend: a book for a philosopher.

⁴⁹⁹ Strohm, *Social Chaucer*, p. 59.

⁵⁰⁰ ‘Eneidos, Bucolis’, in *Gower: Latin Works*.

Cause and Contingency in the *Confessio*

One major concern of the framing narrative of the *Confessio* is the mutability of the world, and the resultant uncertainty of human experience. In his adoption of this topos, Gower makes considerable use of a number of highly conventional tropes:

The see now ebbeth, now it floweth,
The lond now welketh, now it groweth,
Now be the trees with leves grene,
Now thei be bare and nothing sene,
Now be the lusti somer floures
Now be the stormy wynter shoures,
Now be the daies, now the nyhtes,
So stant ther nothing al upryhtes.
Now it is lyht, now it is derk,
And thus stant al the worldes werk
After the disposicioun
Of man and his condicioun.⁵⁰¹

The tides, the seasons, day and night, light and dark – there is nothing unusual in Gower’s selection of imagery; nor, especially, in his anaphoric use of ‘now’, which emphasises the near-paradox inherent in the vicissitudes of life, although it is worth noting that such expressions are often also applied to the paradoxical effects of love, as for example, Chaucer does in the *Troilus* (II. 698). Nor again is there anything particularly surprising about Gower’s adoption of the widespread conceit of man as ‘microcosm’ in the final three lines of this passage: he had already made use of the idea in both the *Mirour de l’Omme* and the *Vox clamantis*.⁵⁰² Nevertheless, Gower’s assertion that the world’s mutability is a reflection of man’s ‘condicioun’ is significant for understanding the quasi-logical concerns of the *Confessio*, since Gower’s discussion of mutability forms part of his analysis of the fourteenth-century logico-theological controversies over causation and future contingency.

In the Prologue, Gower addresses the idea of future contingency at some length, discussing various conventional understandings of causation and generally exposing their

⁵⁰¹ Gower, *Confessio Amantis*, PR. 933-44. All further references will be to this edition and will be included in the text.

⁵⁰² *Mirour de l’Omme*, 26869; *Vox clamantis*, 7.639; see Peck, note to PR. 945 in Gower, *Confessio Amantis*.

weaknesses. The first thing to notice, however, is that, as in the *Troilus*, the whole discussion is prompted by the recent controversies of ‘Lollardie’ (PR. 349). Yet far from depicting ‘this newe secte’ as a grass-roots or even lay movement, Gower’s main criticism of it is its hyper-*clerkliness*. The clerks ‘argumenten faste’ (PR. 370) amongst themselves about the papacy: ‘this clerk seith yee, that other nay’ (PR. 373). From these lines it is not hard to imagine Gower’s possible reaction to, for example, Wyclif’s series of controversies with Strode. Gower objects to the fact that while the clerks ‘thus [...] dryve forth the day’ (PR. 374), each of them is only really interested in his own affairs (PR. 382-83), rather than the common good (PR. 384-85), and so nothing gets done about the state of the Church (PR. 386-87). It is into this context that Gower introduces his first posited explanation of causation:

Thei sein that God is myhti there
 And schal ordeine what He wile
 Ther make thei non other skile
 Where is the peril of the feith[.] (PR. 378-81)

It is because of the apparent Wycliffite belief in predestination, absolutely unqualified (‘Ther make thei non other skile’), that ‘non of hem [...] underfongeth / To schapen eny resistence’ (PR. 386-387). The conviction of determinism leads to passivity, here in the *Confessio* as in *Troilus*; and, as in the *Troilus*, the vehicle used to demonstrate this fact is a caricature of Wycliffite thought.

The implication that it is man’s actions that determine the future, that we are responsible for what will happen, becomes explicit a little later in the Prologue:

His God, which evere stant in on,
 In Him ther is defalte non,
 So moste it stonde upon ousselfe
 Nought only upon ten ne twelve,
 Bot plenerliche upon ous alle,
 For man is cause of that schal falle. (PR. 523-28)

The argument here is that since God is both good and consistent, but the world is mutable and events are often evil, then future events (‘that schal falle’) must be contingent upon (‘stonde

upon') faulty 'man', rather than being simply predetermined by God. Gower is not rejecting divine predestination outright in these two passages: rather he is rejecting what he sees as the reductionist and unqualified position of the Wycliffites, who 'make [...] non other skile' in asserting absolute predestination.

Gower then goes on to mention other conventional explanations of causation:

And natheles yet som men wryte
And sein that fortune is to wyte,
And som men holde oppinion
That it is constellacion,
Which causeth al that a man doth.
God wot of bothe which is soth. (PR. 529-34)

Some say that fortune is the cause of what happens, others blame the stars. For Gower the problem with both explanations is that they are equally unknowable, except to God (PR. 534). Fate and fortune make no practical difference to man if he knows neither: the future is equally uncertain, and he is left once again only with the fact that God knows what will happen, because only God knows the truth about fortune or astrology. Referring an unknowable future to an unknowable cause sheds no new light on the problem. Gower's position can be further understood in the light of Genius's discussion of the ancient Chaldean astrological beliefs, in Book v:

For th'elementz ben servicable
To man, and ofte of accidence,
As men mai se th'experience,
Thei ben corrupt be sondri weie;
So mai no mannes reson seie
That thei ben god in eny wise.

[...]

These elementz ben creatures,
So ben these hevenly figures,
Wherof mai wel be justefied
That thei mai nocht be deified.
And who that takth away th'onour
Which due is to the Creatour,
And gifth it to the creature,
He doth to gret a forsfaiture. (v. 762-80)

The heavenly bodies are subject to the Creator, and exist for the service of mankind, not the other way around: but like all things within man's ambit, they are 'corrupt' and imperfect. Thus, we might deduce, they are to be regarded not as causes either of God's will or the world's mutability, but rather effects. Here his explanation is interestingly reminiscent of Bradwardine's own discussion of this matter in *De causa Dei*, as I will demonstrate below.

In the Prologue, in answer to the conventional explanations of causation, Gower asserts man's actions as causal:

So that the man is overal
His oghne cause of wel and wo.
That we fortune clepe so
Out of the man himself it growth[.] (PR. 546-49)

The 'falle and rise' (PR. 544) of man in a mutable world is comprehensible only in terms of his actions, for 'fortune' is simply the consequence of a man's character and behaviour. Specifically, the sinfulness of man is the cause of his misery, as the history of 'Israel' (PR. 551) demonstrates. Therefore, concerning the mutability of the world:

The man himself hath be coupable,
Which of his propre governance
Fortuneth al the worldes chance. (PR. 582-84)

In other words, you make your own luck. Yet Gower's emphasis very definitely seems to be, you make your own *bad* luck. He presents the 'conclusioun' (PR. 575) of the Biblical story of Nebuchadnezzar's dream,

that upon divisioun
Stant, why no worldes thing mai laste,
Til it be drive to the laste.
And fro the ferste regne of alle
Into this day, hou so befalle,
Of that the regnes ben muable
The man himself hath be coupable[.] (PR. 576-582)

Everything in the world ultimately comes to nothing, like the statue in Daniel's dream which 'so forth torned into noght' (PR. 624). Kingdoms might last for a certain time, but in the end man's sin is the cause of their destruction. Man's progress thus seems inevitably downwards,

interrupted only by interludes of stagnation before the next catastrophe. Gower proceeds to give the reason for the Book of Daniel's pessimistic presentation of man's predicament:

Bot al this wo is cause of man,
The which that wit and reson can,
And that in tokne and in wisesse
That ilke ymage bar liknesse
Of man and of non other beste.
For ferst unto the mannes heste
Was every creature ordeined,
Bot afterward it was restreigned.
Whan that he fell, thei fellen eke,
Whan he wax sek, thei woxen seke;
For as the man hath passioun
Of seknesse, in comparisoun
So soffren othre creatures.
Lo, ferst the hevenly figures,
The sonne and mone eclipsen bothe,
And ben with mannes senne wrothe[.] (PR. 905-920)

Thus the effect of the fall was to lock man into an inescapable downward spiral of change: although the sea might ebb and flow, the post-lapsarian world's mutability seems, in the long term, only to be a change from bad to worse. In that respect, the general aspect of the future is inevitably negative.

In the Prologue, then, Gower seems to set up two perspectives on the nature of the future that are in tension. In places his treatments of the effects of the human action suggests a general alignment with logico-theological positions that attempted to safeguard the freedom of the will and the contingency of the future. Yet the consideration of the result of man's will, the fall, leads him to emphasise the irreversible difference between the prelapsarian and postlapsarian world, an emphasis which may be seen as symptomatic of an anti-Pelagian and even, at times, a rather pessimistically deterministic, viewpoint. This general pessimism in respect of the future emerges more clearly in his treatment of temporal processes, especially ageing, in the framing narrative of the *Confessio*.

Time for a Change: ‘Asymmetric’ Logic and the *Confessio*

Many fourteenth-century *sophismata* are also concerned with irreversible or inevitable temporal processes, which also, naturally speaking, only work one way. One reason for this is that, in spite of what one might expect, valid logic is often asymmetrical. Ralph Strode’s own treatise on *consequentiae*, for instance, emphasises the asymmetrical nature of valid reasoning. Take, for instance, Strode’s use of the maxim, ‘ex falsis verum; ex vero non nisi verum’ (‘From false things come the true; / From the true, nothing except the true’).⁵⁰³ If one’s reasoning is valid, a false premise may still give rise to a true conclusion: to take one of Strode’s examples, in the proposition, ‘ut tu sedes, ergo deus est’ (‘Since you sit, therefore God is’), the conclusion (‘deus est’) is true even if the premise (‘tu sedes’) happens to be false. This is because the proposition, ‘deus est’, is necessarily true in all circumstances.⁵⁰⁴ However, it doesn’t work the other way around: if one’s reasoning is valid, a true premise can never lead to a false conclusion. A similar asymmetry is apparent in twenty-two of the twenty-four rules concerning *consequentiae* that Strode gives. Strode emphasises this fact by pairing rules off together, like so:

Unde prima regula est, si antecedens est verum, et consequens est verum.

2a regula: si consequens est falsum, eius antecedens est falsum.

(Whence the first rule is, if the antecedent is true, the consequent is also true.

The second rule, if the consequent is false, the antecedent is false.)⁵⁰⁵

Assuming a basic symmetry, from a quick glance at the first rule we might assume that the second rule would run, ‘if the consequent is true, the antecedent is true’, simply exchanging consequent and antecedent symmetrically. On the contrary, however, we find that if we want

⁵⁰³ Strode, ‘*Tractatus de Consequentibus*’, p.3; translation, p. 140 (section 1. 1. 05).

⁵⁰⁴ Strode, ‘*Tractatus de Consequentibus*’, p. 2; translation, p. 139 (section 1. 1. 04).

⁵⁰⁵ Strode, ‘*Tractatus de Consequentibus*’, p. 3; translation, p.140 (section 1. 1. 06).

to ‘convert’ the first rule, we must also negate the predicates, turning ‘true’ into ‘false’. One cannot simply reverse the order of the terms in the argument and expect it still to be valid.⁵⁰⁶

Gower employs exactly this asymmetric quality of logical thought in his exploration of the unfairness of love, especially in respect to the sin of supplantation in Book II. Genius’s description of the vice of supplantation identifies it immediately as a case of bad logic:

The vice of Supplantacioun
With manye a fals *collacioun*,
Which he conspireth al unknowe,
Full ofte time hath overthrowe
The worschipe of another man. (II. 2327-31: my emphasis)

The term ‘collacioun’ here is significant. It is piece of logical terminology, which refers to the collection of premises used to draw a logical consequence. It is in this sense that Chaucer uses the term in his translation of Boethius: if a man wants to dispute an argument, ‘it is ryght that he schewe that some of the premysses ben false, or elles he mot schewe that the *collacioun* of preposicions nis nat spedful to a necessarie conclusioun’.⁵⁰⁷ In order to demonstrate that a conclusion is invalid, one must either demonstrate that one of the premises is false or that from the premises taken together one cannot necessarily infer the conclusion. If, therefore, one does not have an appropriate ‘collacioun’ of premises, one cannot make a valid inference, and so the phrase ‘fals collacioun’ came more generally to mean also ‘false inference’.⁵⁰⁸ Here Gower clearly links the vice of making an unfair exchange or substitution (‘chalk for chese’, II. 2346) in matters of commerce, politics, or love with making an invalid inference in logic. Thus the vice of supplantation ignores Strode’s rules for *consequentia*: it treats everything in life, including the places of lover and stranger, as if they were simply ‘convertible’. In life, as in logic, this can only lead to a bad conclusion.

Gower’s choice of exempla for this vice are interesting. His first *major* illustration of supplantation is the story of Geta and Amphitrión, two friends (II. 2459-2495). Amphitrión

⁵⁰⁶ In fact, Rule 2 is, in modern logical terminology, the ‘contrapositive’ of Rule 1.

⁵⁰⁷ *Boece*, IV. pr. 4.65-68 (my emphasis).

⁵⁰⁸ MED, ‘Collacioun’, n. 4a.

imitates Geta's voice and so gains access to his wife Almeene's bed; when Geta turns up and knocks at the door, Almeene refuses him entry, reasoning that, since her husband is with her in bed, the man at the door must be an imposter. The poor husband is left terribly confused. Here again the simple exchange of terms within a *consequentia* has led to a false conclusion. Almeene should have reasoned, 'My husband is at the door; therefore someone else is in my bed'. In fact, she reasons, 'My husband is in my bed; therefore someone else is at the door'. It is not Almeene's consequential logic per se that is at fault here: it is her 'collatioun', her premise ('my husband is in my bed').

This story is one with distinctly logical associations, especially in the version in which it seems Gower knew it. Stephen Wright has argued persuasively that Gower is probably relying on Vitalis of Blois' twelfth-century version of the narrative, because, among other reasons, the other possible sources would not have supplied Gower with the name of 'Geta'.⁵⁰⁹ As I mentioned in the Introduction, Jan Ziolkowski has explored the precise logical concerns of this Latin text in detail.⁵¹⁰ Gower simplifies the narrative somewhat, making it a clearer exemplar for his purposes. However, he maintains what he obviously sees to be the two essential ingredients of the story: firstly, supplantation in love; and secondly, the invalid logic leading to the conclusion that a man is not himself. From Gower's retelling of the story, it seems that worldly love, in its unfairness, even has the power to override the rules of logic, cheating the true lover out of what is rightfully his.

Gower's interest in supplantation fits into his broader interest in causation and irreversible temporal processes. Fourteenth-century logical discussions of cause and effect and other temporal processes often emphasised their asymmetry or irreversibility. One example of this asymmetry is birth and death: someone who has been born can die; but someone who has died cannot be born. One of Buridan's sophisms, then, is, 'The corrupt can

⁵⁰⁹ Wright, 'Gower's Geta', pp. 212-14.

⁵¹⁰ Ziolkowski, 'Humour of Logic'.

be generated'.⁵¹¹ Of course, part of the logical problem Buridan addresses in this sort of sophism is the validity of reference to an object that has undergone, or will undergo, change across time. If the same man who is now dead and rotten was once born, then something (now) dead must have the ability to be born (because he was once born). That reasoning, however, leads to the ridiculous notion that a dead man can be born. Another example of the sort of irreversible changes discussed by Buridan is the cooking of raw food, from which he builds the sophism 'You ate raw meat today'.⁵¹²

One group of *sophismata* of particular relevance to the *Confessio* centred specifically on the changes effected by the ageing process, ranging from examples such as 'Young Socrates was going to argue' to 'Every old horse is going to die'.⁵¹³ Perhaps most striking is the widespread sophism 'An old man will be a boy', which is discussed in a range of variant forms in, for example, the works of Kilwardby, Ockham and Buridan.⁵¹⁴ Buridan considers the argument that the sophism is equivalent to the proposition that 'he who is or will be an old man will be a boy', which is true, for instance, of the future Antichrist (who will be a boy and eventually, presumably, an old man). His use of the example of 'Antichrist' ties his analysis of the problem even more closely to the broader questions about determinism and future contingency. However, the most obvious (and most obviously erroneous) argument in favour of the sophism is, as Kilwardby notes, the fact that the sophism is merely the simple 'conversion' of a perfectly valid proposition ('A boy will be an old man').⁵¹⁵ As Strode later emphasised in his treatise on *consequentia* mentioned above, logic is not quite as

⁵¹¹ Buridan, *Sophisms*, p. 149 (Chapter 5, Discussion of Sophism 5).

⁵¹² Buridan, *Sophisms*, p. 110 (Chapter 4, Sophism 2).

⁵¹³ Buridan, *Sophisms*, p. 150 (Chapter 5, Sophism 6) and p. 148 (Chapter 5, Sophism 4).

⁵¹⁴ Sten Ebbesen summarises Robert Kilwardby's earlier discussion of the rules of converting propositions using the examples, 'No old man will be a boy' and its simple converse 'No boy will be an old man': see *Topics in Latin Philosophy*, pp. 99-100. Ockham's use of the slightly different proposition, 'aliquis puer fuit senex' ('some boy was old'), in his *Summa Logicae* (III-4, ll.4, 87-105), is cited by Spade in 'Synonymy', p. 18. For Buridan's use of the sophism, see *Sophisms*, p. 111 (Chapter 4, Sophism 4). The essential problem of tenses in logical propositions, and its association with ageing, is still current in twenty-first century logical philosophy. See, for example, Frédéric Nef, 'Senex erit puer', who quotes Buridan's discussion of the problem (p. 230).

⁵¹⁵ To be precise, Kilwardby's examples are 'No boy will be an old man' and 'No old man will be a boy', but the point in question and the basic example used are the same.

straightforwardly symmetrical as that. The true proposition that ‘a boy will be an old man’ converts into a false proposition, that ‘an old man will be a boy’, because the ageing process is irreversible. The passage of time, like the passage of narrative, can turn a youth into an old man; but nothing on earth can turn an old man back into a youth. That is the tragedy. The ageing process is thus a very neat example of the problems, both logical and human, associated with the ‘asymmetric’ mutability of the post-lapsarian world, a world which is, in this respect, not only predictable but also a one-way street, from better to worse. There is mutability in the fallen world, but not reversibility; contingency, but not without its limits.

Growing Old Gracelessly: Ageing in the *Confessio* and the *De vetula*

The inescapability and irreversibility of ageing is, of course, crucial to the framing narrative of the *Confessio*. Nicolette Zeeman explains the importance of age thus:

The framing narrative exploits the hyperboles and tropes of endless possibility which characterize courtly love verse; like this verse, it espouses a playful yet resolute commitment to youth, narrative atemporality and poetic stasis, and deals evasively with all material which might contradict this. But then the lover is revealed to be old: the resulting collapse of the framing narrative turns the narrative itself into a figure of worldly instability.⁵¹⁶

The ‘atemporality’ and ‘stasis’ of the framing narrative thus hides the passage of time, and with it the ageing process, allowing the reader to conform his expectations entirely to the youth-obsessed conventions of *fin’ amors*.

Amans certainly seems to represent the ‘true’ young lover and poet of the verse of *fin’ amors*. [//] At the end of the framing narrative, it transpires that Amans is old. [...] It places Amans in a world governed by change and time, Fortune and Nature, Christian morality and philosophy.⁵¹⁷

⁵¹⁶ Zeeman, ‘Verse of Courtly Love’, p. 223.

⁵¹⁷ Zeeman, ‘Verse of Courtly Love’, p. 228.

The revelation of Amans' age reintroduces the negative effects of the passage of time into the idealised world of courtly love: the tragic irony is that 'Amans has already referred to earthly mutability, without recognizing its implications' for himself.⁵¹⁸

The way in which Gower chooses to express his fascination with the passage of time is as much logical as literary. Venus concludes her exhortation to 'John' with the lines: 'The thing is torned into was; / [...] Remembre wel hou thou art old.' (VIII. 2435-39). Thus Gower presents man's experience of time in terms of a proposition with a changing tense: in this case, the proposition 'Amans is young' (the reader's assumption throughout the text) has become 'Amans *was* young'; or alternatively 'Amans is *old*'. This is exactly the sort of change that underlies many of the *sophismata* of irreversible change. In his discussion of the aforementioned sophism 'Young Socrates was going to argue', Buridan analyses the propositions, 'Whoever is or was young Socrates was going to argue' and 'Whoever is or will be young Socrates will argue', where the choice of tense determines the truth-value of the proposition. Such problems formed part of the larger discussion of 'ampliation': the extent to which the reference of a term in a proposition can be extended to include past, present and future realities. Thus as the passage of time effects changes in the real world, remarkably it also seems to effect changes even in the truthfulness of formal propositions, and indeed, the truthfulness of literary depictions – to the extent that Zeeman characterises Gower's initial portrayal of Amans as a sort of 'deception'.⁵¹⁹

Indeed, elsewhere in the *Confessio*, Gower has tantalised his audience with the possibility that true love could be powerful enough to overthrow even the remorselessly asymmetric logic of ageing. In the tale of Florent in Book I, it is the grandmother of Branchus, a lady 'so old sche myhte unethes go' (I. 1444), who contrives the mechanism of bringing Florent to his own premature death. It is the old 'lothly' woman (I. 1530) who is the

⁵¹⁸ Zeeman, 'Verse of Courtly Love', p. 230.

⁵¹⁹ Zeeman, 'Verse of Courtly Love', p. 236.

only person that can save Florent from his death. Like the rest of humanity, Florent's death is ultimately inevitable; a point Gower reminds us of again later, describing Florent's horror at having to take the old woman as his bride in oxymoronic terms: he 'liveth, as who seith, deyinge' (l. 1710). Ageing is simply the physical manifestation of the paradox that for all human beings what we call life is merely the long drawn out process of dying. The Latin gloss accompanying the vernacular narrative presents the story as being centrally concerned with the miraculous transformation of the old woman back into a young girl.⁵²⁰ In fact, as Patricia Batchelor argues, the gloss 'is more concerned with the situation of this *exemplum* in the framing fiction than with the tale itself'.⁵²¹ The apparent reason for this is that the story seems to hold out the hope of a miraculous solution to the problem of ageing. It seems to suggest the possible validity of Buridan's sophism, 'An old man will be a boy' (or rather, 'an old woman will be a girl'). Gower thus plants in the minds of his audience the possibility that there may be a miraculous resolution for Amans too, even once his age is revealed in the final book; hopes which must then be the more cruelly dashed.

As Zeeman notes, one text that probably influenced Gower's use of the ageing trope in his framing narrative is the widely-circulated pseudo-Ovidian *De vetula* of the thirteenth century, another story in which old women confront the reader, and the protagonist, at every turn.⁵²² The *De vetula* was a text well known in the fourteenth century for much more than its basic narrative, which seems not to have been regarded as its most interesting feature by late-medieval readers. The central storyline is relatively simple, as Dorothy M. Robathan summarises:

⁵²⁰ 'Latin marginalia to l. 1408,' in Gower, *Confessio Amantis*.

⁵²¹ Batchelor, 'Feigned Truth', p. 5. Although her approach is very different from my own, Batchelor does go on to emphasise the 'scholarly' nature of the glosses, which interact with the text to produce 'a kind of *disputatio*', which in turn transforms 'this "loathly lady" romance [into] a matter for serious consideration with philosophical and psychological implications' (pp. 8-9).

⁵²² Zeeman, 'Verse of Courtly Love', pp. 229-30. For more on Gower's use of the medieval glossed texts of Ovid, see Mainzer, 'Gower's Use of the Mediaeval Ovid'.

This is the tale of a hoax in which an old lady (*Vetula*) substitutes herself for the beautiful maiden with whom Ovid had an assignation. Twenty years later, upon the death of her husband, Ovid marries his lady, but by that time she too is *Vetula*. Disillusioned he turns his back on the frivolous life he has been leading, embraces a good mediaeval curriculum of mathematics, music, and philosophy; turns for consolation to religion; and in Book III predicts the Virgin birth of Christ and becomes a Christian.⁵²³

The *De vetula*'s concern with the sort of temporal processes of change discussed in the sophistic treatises is explicit from its subtitle, *De mutatione vitae (On a Lifestyle Change)*.⁵²⁴ 'Mutation' was also a technical term to do with logical consequence, meaning the reordering of premises in a syllogism.⁵²⁵ Clearly ageing is an irreversible 'mutation' that takes place over the course of time, and over the course of the narrative: by the end of Book II, the protagonist realises that by now he himself could be called 'vetulus', and it is this moment of self-recognition that prompts him to eschew the life of love.⁵²⁶ The subtitle refers primarily, therefore, to the protagonist's resultant conversion to a life of study and faith, which is explored in Book III, and the story is thus in one sense an optimistic one.

The pseudo-Ovidian topos of the ageing lover is clear enough in the *Confessio*, but the treatment of it is innovative and much less optimistic. Whereas in the *De vetula* the theme of ageing is explicit right from the very title, in Gower's work the lover's age is hidden until almost the end of a lengthy narrative. For one thing, this means that there is no real 'afterlife' for Amans, no real detail of the dignified old age that the *De vetula*'s protagonist enjoys. It thus feels much more pessimistic in tone.

Up to this point, I have been exploring one way of looking at the problem of causation in Gower, focusing on logical approaches to valid consequential reasoning, particularly in relation to cause and effect and temporal processes of change. However, Gower's treatment

⁵²³ Robathan, 'Introduction to *De Vetula*', pp. 197-98.

⁵²⁴ Zeeman also acknowledges that, in general terms, 'the literature of courtly love is substantially influenced by the teachings of the mediaeval schools': 'Verse of Courtly Love', p. 236.

⁵²⁵ See Spade, *Thoughts, Words and Things*, pp. 21-25.

⁵²⁶ *Pseudo-Ovidian De Vetula*, ed. by Robathan (II. 728). All further references will be to this edition and line numbers will be included in the text.

of the problems to do with causation and future contingency is complex. Despite his emphasis in places on the inescapable deteriorative nature, or ‘one-wayness’, of temporal processes in a fallen world, he sometimes hints that the outcome of the love-game is not necessarily subject to such totalising and inevitable logic. His discussion of supplantation is one example, which returns briefly at the denouement of the poem, just before Amans’ age is revealed (VIII. 2382-84). His treatment of the Florent story is another, shaping an initially optimistic response even to that damaging revelation. So when Amans’ age is ultimately revealed, and revealed to be an insoluble problem, it is a surprise. One reason for this is that throughout the *Confessio* Gower weaves into his discussions of causation another crucial factor, one that, at first glance, appears to encourage the reader to think of the narrative future as rather more contingent: *chance* – which is also a theme prominent in the *De vetula*.

Dicing with Love? Chance in the *Confessio* and the *De vetula*

In my analysis of the Prologue, I discussed the conventional explanations of causation that Gower explores: divine predestination, astrological fate, fortune and human free will. In addition, I remarked upon the seemingly paradoxical double assertion of the unpredictable mutability of the world (PR. 933-41) and of direct or indirect human responsibility (PR. 941-43) with which Gower essentially concludes his initial analysis of the problem. Into that mix, Gower introduces one other dimension to his discussion of future contingency that is radical not only in literary but also in philosophical terms. This new dimension, in the absence of a more precise term, we must call ‘chance’. The term ‘chance’ is, of course, not at all uncommon in late Middle English, and I have already quoted Gower’s use of the term in the Prologue. The point of interest is not the term itself but its late-medieval connotations, specifically connotations of what we might now call a ‘probabilistic’ assessment of future contingency.

Almost immediately in Book I we see the application to Amans of Gower's discussion of future contingency in the Prologue: love defies rational prediction or measurement.

And natheles ther is no man
In al this world so wys, that can
Of love tempre the mesure,
Bot as it falth in aventure. (I. 21-24)

Getting the measure of love is not a matter of intelligence, and the outcome of love cannot be forecast:

Bot what schal fallen ate laste,
The sothe can no wisdom caste,
Bot as it falleth upon chance. (I. 39-41)

In both these passages, which deliberately parallel each other in the last line, love is described as something which rational wisdom attempts to measure and predict but fails, being dependant only upon an apparently nebulous 'chance' or 'aventure'. As Gower goes on to put it, love is that 'which wol no reson understonde' (I. 46).

However, the most interesting feature of Gower's discussion of love's 'chance' is the analogy he uses for it:

For love is blind and may noght se,
Forthi may no certeinete
Be set upon his jugement,
Bot as the whiel aboute went
He gifth his graces undeserved,
And fro that man which hath him served
Ful ofte he takth aweye his fees,
As he that pleieth ate dees;
And therupon what schal befall
He not, til that the chance falle,
Wher he schal lese or he schal winne. (I. 47-57)

There are three important things to notice about this passage. The first is the reference to the 'whiel', presumably of Fortune, which reminds the reader that Gower's discussion of 'chance' in Book I is to be held in tension with his discussion of causation in the Prologue. There, Gower argued, fortune grows out of man himself; here man is the passive subject of

love's chance 'judgement'. The tension, in the *Confessio*, between seeming 'chance' and an explicable human causation will be discussed later.

The second point of interest here is that a fourteenth-century reader might have found in these lines a passing allusion to the fate of poor old 'Ovid' in the *De vetula*, who laments over 'quid fortuna michi dedit et quid casus ademit' ('what Fortuna gave me and what chance has taken away') (II. 681). Notice that in the passage from the *Confessio*, when Love 'gifteth', he is decked out with Fortune's 'whiel'; but when he 'taketh', he is associated with 'chance': Fortune gives and chance takes away, just as 'Ovid' says in the *De vetula*. While this resemblance between the two passages would probably have eluded much of Gower's audience, it is possible that some of the more astute may have gleaned from it a hint of the ultimate denouement of Amans' love-suit, even as the narrator is ostentatiously protesting that no such prediction is possible.

The third and most significant feature of this passage is Gower's analogy for 'chance': 'he that pleieth ate dees'. Here again we find an echo of the previous passage: 'as it *falleth* upon chance' becomes 'til that the chance *falle*'; but here the verb 'falle' takes on an added significance. Once the 'dees' have fallen, or have been cast, only then is the outcome of the game made clear ('wher he schal lese or he schal winne'). Until that happens, although the gambler may feel that he deserves a positive result (I. 52), 'what schal befall / he not' (I. 55-56). Similarly, in line 24 quoted above, it is impossible to get the measure of love, 'bot as it *falth* in aventure'. 'Aventure' is a deliberately ambiguous word, able to denote chance of course, but also fate and fortune, two other possible sources of causation discussed in the Prologue. Or the word can simply denote an event itself, without suggestion of cause. The ambiguity stands at the centre of the narrator's profession that the result of the love game is utterly unpredictable. However, Gower also uses the phrase 'in aventure' in the final book of the *Confessio* explicitly to describe a sort-of financial gamble (VIII. 1118), and in the context

of his dicing analogy here, the use of the phrase in line 24 would seem to carry similar connotations.⁵²⁷

The analogy of playing at dice adds a further significance to the verb ‘caste’ in line 40, reminding the audience that the casting of lots, dice or the *astragali* was a common and traditional method of divination; that is, of *forecasting* future events. It was thus associated with the problem of future contingency and divine predestination. As the book of Proverbs puts it, ‘sortes mittuntur in sinu sed a Domino temperantur’ (‘lots are cast into the lap, but they are disposed of by the Lord’: 16:33). Bradwardine himself quotes this verse in *De causa Dei*, in his chapter ‘De casu et fortuna’. He adds to it Ephesians 1:11: ‘nos sorte vocati sumus [prædestinati secundum propositum eius, qui operatur omnia secundum consilium voluntatis suæ]’ (‘we are called by lot, [being predestinated according to the purpose of him who worketh all things according to the counsel of his will]’), clearly relating the question of chance to the question of divine predestination.⁵²⁸ He glosses ‘sors’ as referring generally to ‘fortuna, vel casus’, rather than strictly to sortilege, which could be considered blasphemous.⁵²⁹ As might be expected given his reputation as a quasi-determinist, Bradwardine denies the reality of chance as a cause of anything that happens. Rather to talk of ‘chance’ is merely an unfortunate manner of speaking, used when we do not know the real causes. Indeed, all the events that man may be tempted to ascribe to chance or fortune are in fact ultimately ascribable only to the will of God, as the verse from Ephesians suggests. Thus, he concludes, ‘videtur mihi quod nihil dicitur absolute nomine casuale’ (‘it seems to me that nothing is spoken of in absolute terms as caused by chance’).⁵³⁰ To speak of chance is merely to confess human ignorance: chance cannot be a cause in itself. Thus, the image of casting dice may have contained, for a fourteenth-century audience, not merely a generalised

⁵²⁷ The gamble in question in Book VIII is that an investment of gold on Appolinus’ part will produce the yield of a decent burial for his wife.

⁵²⁸ Thomas Bradwardine, *De causa Dei*, p. 270.

⁵²⁹ See Purdie, ‘Dice-games’.

⁵³⁰ Bradwardine, *De causa Dei*, p. 271.

suggestion of unpredictability, but also a pretty strong whiff of the logico-theological controversy over future contingency.

However, the connotations of prophetic dicing in Gower's image cannot stand alone, for his focus is upon dicing as a *game*, rather than as an act of divination, with the expected winnings of the gambler the central concern. In Book VIII, just before his age is revealed, the narrator laments that

Venus which stant withoute lawe
In noncertein, bot as men drawe
Of Rageman upon the chance,
Sche leith no peis in the balance
Bot as hir lyketh for to weie[.] (VIII. 2377-79)

Here again Gower puts success in love down to 'chance', his metaphor once again being a game that according to some commentators may have involved dice, amongst other things ('Rageman').⁵³¹ The game was, apparently, playfully horoscopic, elegantly combining the ludic and the prophetic in Gower's image.

Apart from its links to divination, then, was there anything about *gaming* with dice that inspired Gower to choose it as his image of the uncertainty of the outcome of Amans' love-suit? The answer to this question may lie in the *De vetula*, which is a text of interest not only to literary scholars but also to historians of mathematics, since it contains the earliest evidence of the medieval inception of a nascent understanding of what would later become 'probability theory'.

Discussing the pastimes of his youth, the 'Ovid' of the narrative disparages dicing as a vice that leads frequently to penury ('egestatem': I. 402), as well as occasional violence (I. 492-94), concluding that 'Solus inest casus quem non sequitur nisi stultus' ('There is only chance in it, which none but a fool follows'): I. 495. Nevertheless, the poet entertains the

⁵³¹ In his note to this line, Peck (Gower, *Confessio Amantis*), following Macaulay (Gower, *Complete Works*, III, pp. 544-45), calls Rageman 'a dice game'. However, the role of dice in the medieval game is not certain. For more on medieval attitudes towards dicing, and on 'Rageman' in particular, see Purdie ('Dice-games', esp. pp. 182-83), who unequivocally asserts that Rageman did not involve dice. It is nevertheless clearly a game of chance.

counterargument that dicing is not merely a matter of simple chance, since certain combined totals are more likely to come up: ('Forte tamen dices quosdam prestare quibusdam / Ex numeris, quibus est lusoribus usus': 'Perhaps, however, you will say that certain numbers used by the gamblers are better than others': I. 428-29). Remarkably, fifty-six lines are given over to a detailed exploration of this claim, in addition to three different tables setting out the various possible combinations and totals possible with three six-sided dice. The mathematically significant aspect of this passage is the link the poet draws between the combinatorial calculations and the likely outcome of a given throw:

Cum decius sit sex laterum, sex et numerorum
 Simplicium, tribus in deciiis sunt octo decemque,
 Quorum non nisi tres possunt deciiis superesse.
 Hi diversimode variantur et inde bis octo
 Compositi numeri nascuntur, non tamen eque
 Virtutis, quoniam maiores atque minores
 Ipsorum raro veniunt, mediique frequenter.
 Et reliqui, quanto mediis quamvis propiores,
 Tanto prestantes et sepius advenientes[.] (I. 430-38)⁵³²

(Since there are six sides to a die, and six simple [i.e. non-compound] numbers, there are eighteen on three dice, of which no more than three can be on the top of the dice [at the end of the roll]. These vary in different ways and from them sixteen compound numbers are produced, but they are not all equally good, because the bigger and smaller ones come up rarely and the middle ones come up frequently. As for the others, the closer they are to the middle ones, the better they are and the more often they come up.)

Thus the author of the *De vetula* is not merely commenting on the possible combinations, but clearly deduces on the basis of his combinatorial calculations that some totals are 'better' and come 'more frequently': in other words, they are more *likely* to come up than others. Thus it has been argued that 'the poem provides direct evidence that an elementary probability calculus was established and known in Europe from about the year 1250'.⁵³³ This date is far earlier than was thought by many twentieth-century historians of science. I will now turn to

⁵³² Bellhouse, 'De Vetula: A Medieval Manuscript', p. 130.

⁵³³ Bellhouse, 'De Vetula: A Medieval Manuscript', p. 128.

the broader question of ‘chance’ and ‘probability’ in late-medieval thought, before returning to Gower to discuss the significance of such logico-mathematical developments for a literary reading of the *Confessio*.

The Rise of the Probable: The *De vetula* in Context

The calculations in the *De vetula* might be put into the context of two distinct but interacting areas of medieval thought, both as yet merely incipient but evolving together. The first is what would now be called ‘combinatorics’, and the second is the broader notion of ‘probability’. In relation to combinatorics, Boethius, in his commentary on Porphyry, demonstrates his knowledge of ‘the rule for finding the number of combinations (without repetition) of n things taken two at a time’.⁵³⁴ Yet the context of the passage is not specifically mathematical and indeed, as Norman Biggs remarks, ‘the rule does not appear in the mathematical writings of Boethius, although the numbers given by his rule are just the triangular numbers, which he does discuss at some length’.⁵³⁵ Other quasi-combinatorial problems appear in the form of puzzles such as the famous river crossing, with wolf, goat and cabbages, from Alcuin’s *Propositiones ad acuendos iuvenes*, which, as I have discussed, was a problem still celebrated in the fourteenth-century.⁵³⁶ However, as Biggs points out, this problem ‘differs significantly from most other mediaeval puzzle-problems, in that it has no arithmetical or geometrical content whatsoever’; it demonstrates an interest in choosing different combinations of objects, but lacks the necessity for any systematic analysis of the number of possible combinations.⁵³⁷ Another example of this sort of puzzle is the infamous Josephus problem, originally based on the story that the Jewish historian, trapped in a cave with forty other Jewish rebels who had decided upon mass suicide, suggested that they work

⁵³⁴ Biggs, ‘Roots of Combinatorics’, p. 114. See Boethius, ‘Commentaria in Porphyrium a se translatum liber primus’, in *PL* (64), pp. 149-150.

⁵³⁵ Biggs, ‘Roots of Combinatorics’, p. 114.

⁵³⁶ See Chapter 1. Biggs amongst others, questions the attribution to Alcuin: Biggs, ‘Roots of Combinatorics’, p. 127.

⁵³⁷ Biggs, ‘Roots of Combinatorics’, p. 128.

round the circle of men, killing each third man. He then positioned himself in the thirty-first position, in order to ensure that he was one of the last two survivors; whence, after a bit of persuasion, both men surrendered to the Romans. The puzzle was also adapted into other forms, such as a circle of fifteen Christians and fifteen Turks, and is found, at least, in manuscripts of the tenth, eleventh, twelfth and fifteenth centuries, including an eleventh-century French manuscript that also contains a range of mathematical texts along with the *Propositiones ad acuendos iuvenes*.⁵³⁸ There was certainly some interest in combinatorics in later medieval Jewish thought:

From the 12th century onward, calculations involving the formula for combinations without repetition began to appear in a variety of languages and in a variety of contexts. The Jewish scholar Rabbi ben Ezra (ca. 1140) discussed the possible conjunctions of the planets and seems to have used the general rule without stating it explicitly [...]. (There is some evidence of an interest in permutations and combinations in earlier rabbinic literature [...].) Levi ben Gerson (1321) stated the rule in words.⁵³⁹

Thus it can be seen that although an interest in combinatorial problems was certainly not absent in medieval thought, it was in many ways a ‘fringe’ concern. The connections with puzzles and games on the one hand, and with astronomy on the other are worth noting, however, given the *De vetula*’s use of combinatorics in the context of dicing and the text’s broader interest in astrological fate.

The concept of ‘probability’ is more difficult; but once again it is clear that the idea was evolving throughout the later Middle Ages. Significantly, the term was most often applied to propositions of uncertain truth-value. In the twelfth century, however, scholastic thought seems merely to restate, perhaps with minor developments, the classical definitions of probability. Thus in the *Metalogicon*, John of Salisbury ‘initially defines probable logic as

⁵³⁸ See Schumer, ‘Josephus’, p. 12; Cajori, *Elementary Mathematics*, pp. 221-22; and Biggs, ‘Roots of Combinatorics’, p. 128. The French manuscript in question is Montpellier, Bibliothèque de la Faculté de Médecine H491. See Folkerts, ‘De arithmetiis propositionibus’, in *Essays on Early Medieval Mathematics*, Chapter 3, pp. 3-4.

⁵³⁹ Biggs, ‘Roots of Combinatorics’, p. 118.

concerned with propositions which seem to be valid to all or to many or to the wise'.⁵⁴⁰ His definition of probability is, in this case, merely a corollary of his view that reasoning should bear the moderation of common sense, rather than being forced or extreme. Yet he also goes on to re-define 'probable' as follows: 'Quod enim semper sic, aut frequentissime, aut probabile est, aut videtur probabile, etsi aliter esse posit' ('Something that is always or usually so, either is or seems probable, even though it could possibly be otherwise').⁵⁴¹ Although the relationship of empirical frequency and probability seems to be germane in John's work, his presentation of probability is almost entirely rhetorical, as Daniel Garber and Sandy Zabell point out, who compare John's definitions with a passage from his hero Cicero's *De inventione*, in which he too refers both to general approbation and 'quod fere solet fieri' (that which 'for the most part usually comes to pass').⁵⁴² As Garber and Zabell put it, 'approbation by one's audience is necessary if persuasion, the goal of dialectic and rhetoric, is to be achieved; frequency of occurrence is necessary if approbation is to be achieved'.⁵⁴³

It seems to be in the fourteenth century that a significant shift took place. While Ockham, writing in the first quarter of the century, still defines probability in terms of general approbation, Oresme, writing after the remarkable period in which the 'Oxford Calculators' and others had applied the sophistic method of logic to a range of mathematical problems, seems to emphasise frequency of occurrence much more clearly and mathematically. For instance, in his treatise *De proportionibus proportionum*, he argues that two unknown ratios ('duabus proportionibus ignotis') are likely to be incommensurable ('verisimile est eas incommensurabiles esse') because of the greater number of such ratios than commensurable

⁵⁴⁰ Garber and Zabell, 'Emergence of Probability', p. 46; citing John of Salisbury, *Metalogicon*, 2.3.

⁵⁴¹ Garber and Zabell, 'Emergence of Probability', p. 46; citing John of Salisbury, *Metalogicon*, 2.14. The translation is that provided by Garber and Zabell.

⁵⁴² Cicero, *De Inventione*, ed. by Henderson, trans. by Hubbell, pp. 84-85.

⁵⁴³ Garber and Zabell, 'Emergence of Probability', p. 46. Garber and Zabell acknowledge that a *clear* understanding of the 'existence of statistical regularities in nature and human society only first occurs [...] in the 18th and 19th centuries' ('Emergence of Probability', note to p. 47).

ones. Similarly, he argues that if one were to take an unknown number, such as the number of hours that will pass before Antichrist comes ('sicut forte numerus horarum omnium que transibunt antequam antichristus'), that number is unlikely to be a cube, because there are fewer cubes than non-cubes. The same is true, he says, in games where one is asked to guess if a secret number is a cube number ('sicut est in ludis si peteretur de numero abscondito utrum sit cubicus'): it is more probable ('probabilius') that it is not.⁵⁴⁴

Oresme's work stands squarely in the fourteenth-century tradition of logic and mathematics. For one thing, there is his interest in proportions, following Bradwardine.⁵⁴⁵ For another, there is his use of standard sophistic tropes. In this very passage, for instance, he adduces the coming of Antichrist as the staple example of a certain but unknown future event. There is also his adaptation of the 'number-guessing' scenario. Buridan, for example, had used the sophism 'You know the coins in my purse to be even in number'.⁵⁴⁶ However, Oresme's explicit treatment of what is probable in terms of numerical frequency of occurrence is highly significant. The concept of the probability of a proposition is now no longer merely rhetorical; rather it implies an 'expected' result that can be mathematically calculated. Thus by the third quarter of the fourteenth century, a major shift was beginning to take place in the understanding of probability, which, while partially expressed in mathematically innovative terms, was still nevertheless directly connected with its contemporary logico-theological concerns, such as prophecy and future contingency.⁵⁴⁷

⁵⁴⁴ Oresme, *De proportionibus*, pp. 249-51 (Chapter 3, proposition 10). Part of this passage is also quoted by Gaber and Zabell, 'Emergence of Probability', pp. 46-47.

⁵⁴⁵ Bradwardine published his celebrated and widely influential *Tractatus de proportionibus* in 1328: see Genest, *Prédétermination et liberté*, p. 13.

⁵⁴⁶ Buridan, *Sophisms*, p. 124 (Chapter 4, Sophism 10).

⁵⁴⁷ Edward Grant gives c.1360 as a probable date of composition for this work. See 'Nicole Oresme', p. 293.

Furthermore, Oresme's association of frequency-dependent probability with gaming ('sicut est in ludis') is significant. Oresme, like Bacon, Bradwardine, Burley, Richard of Bury, and Holcot, knew the *De vetula*, and refers to it in his work.⁵⁴⁸

[One] reference is in Oresme's treatise arguing for the incommensurability of celestial motions [...]. The reference is taken from Book III of *De Vetula* and concerns a discussion of the 'nobility' of the number three. Oresme's incommensurability argument is based on [his] earlier work, *De Proportionibus Proportionum* [...] It is tempting to speculate that Oresme's idea to look at the relative frequency [...] came from *De Vetula*.⁵⁴⁹

Another reference appears in the context of Oresme's consideration of false (or faked) prophecies, in which category he places the 'Ovidian' prophecy about Christ in the *De vetula*.⁵⁵⁰ Thus it is possible that the *De vetula* directly inspired Oresme's mathematical development of the concept of probability and it is clear that he also took an interest in the text's relevance to the widely debated problems of prophecy and future contingency.

A Risky Business: Commercial Probabilities

Evolving semi-independently from the idea of the probability of propositions was the late-medieval interest in commercial risk. Some late thirteenth- or fourteenth-century Franciscan thinkers proposed the view that

the aleatory element of a commercial contract could be evaluated in its own terms, and possibly sold separately. It is remarkable that this process fits in exactly with the way in which maritime insurances were invented in Tuscany, in the first half of the XIVth Century, the 'risk' of a specific commercial operation being 'bought' by an insurer against the payment of a *premium*.⁵⁵¹

Despite never fully reaching a precise measure of what we would call probability, such thinkers

supposent néanmoins qu'une mesure de l'incertain est possible, puisqu'elle peut être exprimée au présent par une valeur monétaire. Se

⁵⁴⁸ See Robathan, 'Introduction', in *Pseudo-Ovidian De Vetula*, p. 2 and footnote.

⁵⁴⁹ Bellhouse, '*De Vetula*: A Medieval Manuscript', pp. 126-27.

⁵⁵⁰ Bellhouse, '*De Vetula*: A Medieval Manuscript', p. 126.

⁵⁵¹ Meusnier and Piron, 'Medieval Probabilities', p. 2.

dévoile de la sorte une fonction cognitive majeure de la monnaie. Constituant l'unité en laquelle sont exprimées les valeurs des biens marchands, c'est elle qui permet de rendre pensable, dans le présent, la valeur de biens futurs.⁵⁵²

It is significant that, in such treatises, 'les termes les plus courants sont le substantif *dubium* ou le verbe *dubitare*'.⁵⁵³ These terms presented great interest and great challenges for the fourteenth-century logicians, who used them to formulate *sophismata* such as Buridan's 'Socrates knows the proposition written on the wall to be doubted by him', which formed part of the wider discussion about uncertain 'knowledge' that I will return to below.⁵⁵⁴ In particular, the work of the late thirteenth-century Franciscan philosopher and logician, Peter John Olivi (*De contractibus*) has presented significant examples of how late-medieval scholastics treated the concept of 'risk'. Olivi's work demonstrates a significant break from the philosophy of Aquinas, who had 'denied the lender's right to demand compensation for *possible* lost profit, since doing so involved selling what had only *probable*, rather than real existence'.⁵⁵⁵ Olivi, on the other hand, argued that 'probable profit has a real and measurable existence as a kind of fructifying power within the *capitale* itself'.⁵⁵⁶ Olivi's position would seem to demand a correspondingly strong philosophical emphasis on the contingency of future events, otherwise the transaction might involve the sale of something that does not, will not, nor could ever exist. If the future is viewed *probabilistically*, it must be viewed contingently (although not as totally incapable of generalised prediction).

Merchants themselves also developed ways of estimating risk 'to build up sophisticated contracts in order to cope with the perils of trading activity', even without a systematically statistical approach, although 'in some cases they did adopt a form of "proto-statistical" estimation of risk, based on the rough observation of the frequency of the

⁵⁵² Piron, 'Le traitement de l'incertitude', p. 2.

⁵⁵³ Piron, 'Le traitement de l'incertitude', p. 2.

⁵⁵⁴ Buridan, *Sophisms*, p. 207 (Chapter 8, Sophism 13).

⁵⁵⁵ Kaye, *Economy and Nature*, p. 85.

⁵⁵⁶ Kaye, *Economy and Nature*, p. 121.

accidents that occurred in the sea trade (i.e. “factual probability”)⁵⁵⁷ This shows how the evolution of ‘probabilistic’ reasoning and calculation began to emerge from the confluence of late-medieval philosophy and everyday, practical problems, such as ‘the problem of division of stakes between partners in a game [or] problems arising on the occasion of commercial associations that have to be split before the scheduled term’.⁵⁵⁸ It is not surprising, then, given the context, that some of the Oxford Calculators and other fourteenth-century mathematicians and logicians, such as Oresme, took an interest in the *De vetula*.

The Influence of the *De vetula*

Bradwardine twice makes use of passages from the *De vetula* in his *De causa Dei*.⁵⁵⁹ The first is given in the context of a discussion of the possible causation that can be attributed to astrological influences, along with other prophetic signs. Bradwardine inserts a fairly extensive quotation from Book III of the *De vetula* into a consideration of the astrological signs that, along with the prophecies of the Sybil, anticipated the Virgin Birth. Having quoted lines 611-644 of the third book, which concern these astrological phenomena, Bradwardine writes:

Nec quia talis constellatio, aut talis coniunctio Christum præcessit, ideo Christus fuit de virgine nasciturus, aut legem daturus, sed potius è contra; haec enim non erant causa istorum sed signum, nec ideo Dominus stellarum & temporum ipsis subijcitur, sed haec sibi.⁵⁶⁰

(Nor [is it the case that] because such and such a constellation or conjunction preceded Christ, therefore Christ was about to be born of a Virgin, or the law was about to be given, but rather the other way around: for these [astrological phenomena] were not the *cause* of those events but the sign of them – the Lord of the stars and seasons is not subject to them, but they to him.)

⁵⁵⁷ Ceccarelli, ‘The Price for Risk-Taking’, p. 3.

⁵⁵⁸ Meusnier and Piron, ‘Medieval Probabilities’, p. 3.

⁵⁵⁹ See Robathan, ‘Introduction’, in *Pseudo-Ovidian De Vetula*, p. 2.

⁵⁶⁰ Bradwardine, *De causa Dei*, p. 74

One must beware the ‘post hoc ergo propter hoc’ fallacy when dealing with questions of causation. Whereas it is valid to argue that ‘There are certain astrological conjunctions because Christ is about to be born’, it is not valid to argue that ‘Christ is about to be born *because* there are certain astrological conjunctions’. Terms within syllogisms of consequence and causation are not simply exchangeable like that: inherently, cause and effect is a ‘one-way’ system. One should not think of the movements of the stars as causes, but as effects of God’s will; not, that is, as creators but as creatures. Gower argues the same thing in the passage from Book v quoted above.⁵⁶¹ Bradwardine’s reasoning here is central to how he addresses, throughout his work, the core concern of much fourteenth-century logic and theology, which is also a major theme of the *De vetula*: the problematic interrelation of God’s foreknowledge with contingency. Certain future events, although uncertain and humanly unpredictable, seem nevertheless to have been predicted through prophecy.

In the case of Bradwardine’s other citation of the *De vetula* (l. 722-741), it is significant that it occurs in the context of his anti-Pelagian argument that whatever other qualities fallen man may possess, ‘charitas [...] et gratia non sunt nobis innatæ’ (‘charity and grace are not innate to us’).⁵⁶² The fall, in other words, was humanly irreversible: a one-way street, which man of his own causation cannot return along. As such, the implication is that although fallen man’s future actions may be unknown in the particular, they will follow a predictable tendency or pattern in general. Although Bradwardine does not explicitly refer to the passage on dicing, his interest in the *De vetula* focuses, like Oresme’s later, on the problems surrounding the prediction of future events in general.

⁵⁶¹ This line of argument is by no means original to Bradwardine. Augustine, for example, writes, ‘Let it not, then, be supposed that this hour came through any urgency of fate, but rather by the divine appointment. It was no necessary law of the heavenly bodies that tied to its time the passion of Christ; for we may well shrink from the thought that the stars should compel their own Maker to die. It was not the time, therefore, that drove Christ to His death, but Christ who selected the time to die: who also fixed the time, when He was born of the Virgin, with the Father, of whom He was born independently of time’: Augustine, *Tractates*, 104.2 (John 17:1).

⁵⁶² Bradwardine, *De causa Dei*, p. 332.

Robert Holcot quotes four short passages from the *De vetula* in a single *Lectio* of the Wisdom Commentary.⁵⁶³ Two are taken from the terminal invocation of the Virgin, beginning with ‘O Virgo felix, o Virgo significata / Per stellas [...]’ (‘O, happy Virgin, O Virgin signified through the stars’) (III. 773-812). As with Bradwardine, the context of Holcot’s use of the text is astrological signs accompanying the Christian narrative. Apparently because of the allegedly prophetic content, Holcot leaves the question of the authorship of the *De vetula* to God’s omniscience: ‘an sit liber Ouidii deus nouit’ (‘whether or not the book is by Ovid, God knows!’).⁵⁶⁴ The other two quotations are taken from a passage in Book I of the *De vetula*, lamenting the prostitution of the ‘virgo scientia’ and the exile of ‘philosophia’ that ‘philopecunia’ might reign in its place (I. 711-768). The last two of these four quotations also appear in the *Philobiblon* – perhaps further evidence that Holcot may have had a hand in its composition. There was a certain irony, perhaps deliberate, in the fact that, in the *De vetula*, this lament comes shortly after a passage applying a mathematical analysis to the professedly vicious and avaricious pastime of dicing; and further irony in the fact that while some fourteenth-century philosophers were busy quoting the lament, others were equally busily applying similar methods to commercial processes. Yet either way, it is clear that

the interest in this spurious Ovidian poem for many people lay less in the erotic material than in the philosophical, religious, and scientific content [and this fact] is indicated by the kind of works which are often included in the manuscripts of the *De Vetula* [... including] treatises of an astronomical and arithmetical nature.⁵⁶⁵

⁵⁶³ Holcot, *Super Libros Sapientiae* (Hagenau), *Lectio* LX. See Robathan, ‘Introduction’, in *Pseudo-Ovidian De Vetula*, p. 2; citing Holcot, *Super Libros Sapientiae* (Reutlingen), *Lectio* LXI (the two editions use slightly different numbering).

⁵⁶⁴ Holcot, *Super Libros Sapientiae* (Hagenau), *Lectio* LX.

⁵⁶⁵ Robathan, ‘Introduction’, in *Pseudo-Ovidian De Vetula*, p. 30 and footnote.

Thus the *De vetula* was of interest to the fourteenth-century scholastics both as a useful scientific source in general, and as one with particular relevance to the controversy raging over foreknowledge, prophecy and future contingency.

Nor was the *De vetula* devoid of interest for authors and readers of vernacular literature. Petrarch, albeit writing in Latin, questioned its Ovidian authorship in his *Epistolae seniles*, and ‘Piero di Dante Alighieri in his commentary on his father’s *Divina Commedia*, written about the middle of the fourteenth century, quotes twice from the *Vetula*’; Jean Lefevre, the fourteenth-century French author of the *Livre de leesce*, also produced a vernacular version of the *De vetula*.⁵⁶⁶ In the fourteenth century the Dante commentary tradition became itself a fertile source of proto-probabilistic speculation. In Canto 6 of the ‘Purgatorio’, Dante uses an analogy from dicing:

Quando si parte il gioco de la zara,
colui che perde si riman dolente,
repetendo le volte, e tristo impara[.]

(When dicing’s done and players separate,
the loser’s left alone, disconsolate –
rehearsing what he’d thrown, he sadly learns.)⁵⁶⁷

At least three different fourteenth-century commentaries use this passage as a springboard to discuss the basic combinatorics of dicing, although much more briefly and, in places, less accurately than the *De vetula*. For example, as M. G. Kendall points out, Jacopo della Lana, writing in the 1320s, notes in passing that certain totals occur more frequently than others because there are more ways in which they can sum up (‘quello numero che gli è più volte, dee più spesso venire’); therefore the number that can sum up in most ways is the best (‘quel

⁵⁶⁶ Robathan, ‘Introduction’, in *Pseudo-Ovidian De Vetula*, pp. 1-3. Admittedly, the Lefèvre version abridges the dicing calculations, and ‘merely enumerates the 16 possible scores with three dice and points out that some of them occur more often than others’: Kendall, ‘History of Probability’, p. 5. See also Hasenohr-Esnos, *Le Respit de la Mort*, Introduction, pp. xlix-lii.

⁵⁶⁷ Dante, *Comedia*, ‘Purgatorio’, VI.1-3; the translation is included with this version of the text.

numero che in più modi può venire, quella è detta miglior volta’).⁵⁶⁸ Although errors appear when the commentator gets down to specific examples, ‘the necessary conceptualization of the perfect die and the equal frequency of occurrence of each face are explicit’.⁵⁶⁹ Kendall does not mention, however, that Jacopo della Lana clearly envisioned such calculations being used predictively, writing of the unfortunate gamer:

poi dice: se io non avessi chiamato XI, non avrei perduto. E così
ripetendo le volte, elli impara di non chiamare un'altra fiata XI[.]

(Then he says, ‘If I had not called “eleven”, I would not have lost.’
Therefore in repeating the throw, he learns not to call ‘eleven’
again.)⁵⁷⁰

It is clear, therefore, that such combinatorial calculations formed part of a wider, although perhaps hazy, understanding that probabilistic chance played a part in future contingent events, and could be used roughly to predict them.

Kendall, like almost all the historians of statistics that have written on this passage both before and after him, follows the nineteenth-century historian of science Guillaume Libri in dating this commentary to the late fifteenth-century (1477), which is in fact the date of the edition, rather than the original.⁵⁷¹ The error was only quietly identified in 1988, and the later date was still used in scholarly analysis at least as recently as 1997.⁵⁷² Yet this correction is highly significant. Whereas Kendall could write that ‘it seems clear that by the end of the fifteenth century the foundations of a doctrine of chance was being laid’, the fact that such calculations were being made 150 years earlier demonstrates that the *De vetula* was not so uniquely ahead of its time as was once thought. Rather, it seems that by the middle of

⁵⁶⁸ Jacopo della Lana, *Comedia di Dante*. See Kendall, ‘History of Probability’, pp. 5-6, who provides the whole passage in translation, with comments.

⁵⁶⁹ Kendall, ‘Studies in the History of Probability’, p. 6.

⁵⁷⁰ Jacopo della Lana, *Commedia di Dante*.

⁵⁷¹ The widespread dispersal of this error in English scholarship seems to be largely due to Todhunter, *Theory of Probability*, p. 1, who cites Guillaume Libri, *Histoire des Sciences*, II, p. 188. Since then a degree of vagueness and confusion has persistently dogged the reference to this commentary, even in otherwise scholarly work: Ronald Serlin, for instance, attributes the ‘1477’ commentary to ‘Libri’ himself! See, ‘Constructive Criticism’, p. 204.

⁵⁷² See Ineichen, ‘Dante-Kommentare’ for the correction; see also Bellhouse and Franklin, ‘Language of Chance’, p. 75, who still give the date as 1477.

the *fourteenth* century ‘the foundations of a doctrine of chance’ were being laid; especially since, as has been recently recognised, the Jacopo della Lana commentary is not alone, even in the fourteenth century. Both *L’Ottimo Commento* (c. 1333) and the commentary of Francesco da Buti (c. 1385-95) contain similar calculations, and the tradition is well-established enough to continue into the fifteenth century (in, for example, *Johannis de Serravalle* (c. 1416-17)).⁵⁷³

The real significance for literary critical purposes here is that the late-medieval development of a concept of probabilistic chance, which not only plays a part in determining future contingent events but can also therefore be somehow calculated in order to predict those events, took place at least as much within *literary* and *literary critical* contexts as within philosophical or commercial contexts, and was influencing even *vernacular* literary and literary critical texts throughout the fourteenth-century.

Chaucer provides one relatively clear example that English literature was neither immune to the influence nor isolated from the general evolution of probabilistic ideas. Bellhouse and Franklin, in their fascinating study of ‘The Language of Chance’, notice an interesting instance in the Pardoner’s Tale:

When two players, say A and B, play at dice, the events by which A or B win are called A’s chance and B’s chance. [...] The Pardoner gives several examples of swearing, one of which is [...]:

‘And “By the blood of Crist that is in Hayles,
Sevene is my chaunce and thyn is cynk and treye,”’
[VI. 652-53]

[...] Here Chaucer must be referring to the sum of the faces which show [on two dice], since seven is listed as one of the chances. Now the event of a seven showing has the same probability as the event of five or three showing.⁵⁷⁴

⁵⁷³ All three commentaries are accessible online at the Dartmouth Dante Project: for the URL, see Dante, *Comedia*. In each case, the relevant passage is the commentary on Purgatorio, VI. 1-3. Some interesting, yet brief, analysis of these passages can be found in Ineichen, ‘Dante-Kommentare’, and in Girotto and Gonzalez, ‘Norms’, pp. 231-32.

⁵⁷⁴ Bellhouse and Franklin, ‘Language of Chance’, p. 77.

More precisely, the chance of rolling a total of seven is $6/36=1/6$; the chance of rolling a total of five is $4/36=1/9$; and the chance of rolling a total of three is $2/36=1/18$. $1/6 = 1/9 + 1/18$. Thus it seems probable that Chaucer was capable of using basics combinatorics to calculate the likelihood of certain totals. Franklin and Bellhouse conclude that Chaucer was using the term ‘chances’ to mean events which had the same weight of probability. This is, of course, merely a minor example of the influence of such ideas upon late fourteenth-century literature. In the *Confessio* itself, ‘chance’ has a bigger part to play.

Reading the Odds: Chance and Determinism in the *Confessio Amantis*

As discussed above, Gower’s interest in ‘chance’ forms part of his wider interest in the competing late-medieval explanations of causation: divine predestination, human free will, astrological fate and the somewhat nebulous idea of ‘fortune’. According to Tatlock and Kennedy, the term ‘chance’ (including all its forms as noun and verb) occurs in the *entire* Chaucerian corpus twenty-five times. By comparison, ‘chance’ and its forms appear in Gower’s *Confessio* alone sixty-seven times.⁵⁷⁵ Gower’s emphasis is unmistakable, as is the repeated contexts of dicing and prophecy in which he uses the word. There are, in addition to the passage from Book I quoted above, two passages from Books IV and V noted by Franklin and Bellhouse in their survey of the rise of proto-probabilistic language in the Middle Ages.

The first ‘is written in the context of the casting of dice for fortune-telling in matters of love’:⁵⁷⁶

⁵⁷⁵ Chaucer’s complete works (including the *Romaunt*): perchance (3), chance (20), chances (2): total = 25. Gower (*Confessio*): chance (including per chance) (63), chances (3), chanceth (1): total = 67. See Tatlock and Kennedy, *Concordance*; and *Concordance to ‘Confessio Amantis’*, ed. by Pickles and Dawson. Part of this difference is due to Chaucer’s preference for the term ‘aventure’ and its forms, which he uses over 90 times compared to Gower’s 45. However, as I discussed earlier, ‘aventure’ has a much wider range of meanings and can certainly not be taken always and necessarily as an invocation of what we would call ‘chance’: it may equally (perhaps more frequently) gesture at some sort of obscure ‘fate’. Gower utilises the connotations of ‘chance’ repeatedly and emphatically.

⁵⁷⁶ Bellhouse and Franklin, ‘Language of Chance’, p.75. Bellhouse and Franklin do not give their reasons for the assertion that the dicing referred to here is prophetic. However, given that it comes in the midst of a list of other

And whanne it falleth othergate,
So that hire like noght to daunce,
Bot on the dees to caste chaunce
Or axe of love som demande,
Or elles that hir list comaunde
To rede and here of Troilus,
Riht as sche wole or so or thus,
I am al redi to consente. (IV. 2790-97)

At first glance, this passage constitutes a simple list of pastimes. However, there is an implicit antithesis here between the activities of dicing and reading: by the first is implied a view of future contingency related to ‘chaunce’; the second evokes a deterministic or predestinatory perspective. Gower’s repeated use of ‘chance’ and the ‘dicing’ metaphor to describe the outcome of the love-game impels his audience to think of the future conclusion of the narrative as still contingent and undecided. Gower’s reference to the act of reading, however, reminds his audience that the conclusion is already written. Gower’s juxtaposition of ‘read’ and ‘here’ emphasises these two contrasting modes of experiencing his narrative. If one is reading a written text, then one is conscious that the ending is in fact predetermined; if one is listening to a story told aloud, one is arguably more conscious of the narrative’s inherent instability.

Gower’s choice of *Troilus* is thus highly significant, it being the narrative of a lover overwhelmed by his own simplistic reasoning about predestination and contingency, as I discussed in the previous chapter. It is only natural that the reader or audience of the *Confessio* should in turn apply this dichotomy to the narrative of Amans himself. While it too is authorially predetermined by Gower, it is nevertheless styled as a conversation, a kind of text shaped reactively by the interaction of two parties, for both of whom the course of the discussion is contingent upon forces external to themselves. In this sense it is comparable to the logical *disputationes de obligationibus*, whose power to imagine an infinite number of

common pastimes associated with love (dancing, love demand games, reading poetry about love), the use of dice in a game of romantic fortune telling seems the most probable explanation of the line. In addition, it may perhaps seem a little incongruous to imagine the feminine object of ‘courtly love’ taking part in the sort of morally dubious gambling depicted, for example, in the Pardoner’s Tale.

fictive ‘worlds’ I discussed in the first chapter; or comparable to the ‘conversational’ two-stage evolutions of the Liar Paradox, such as ‘Buridan’s Bridge’, where one speaker’s seemingly straightforward assertions about his future action are problematised by the reply of the other speaker. This ‘conversational contingency’, if I may call it that, lies in stark contrast to the simplistic predetermined philosophy of Troilus, which emerges in the solipsistic context of his soliloquy.

We are explicitly pre-warned in *Troilus* about the tragic disappointment of the lover’s hopes. Gower, on the other hand, deliberately drops ambiguous and tantalising hints. In the context of late-medieval discussions of probability, it is important to emphasise that, for Gower, ‘chance’ might not mean total unpredictability: some bets are better than others. A clever gambler will not pick a likely loser. The reference to the *Troilus* in this passage is thus even more significant. Russell Peck points out that

lovers are often presented as wishful readers where the subject of their text offers an unheeded warning. [...] Criseyde is reading the ominous ‘romance ... of Thebes’ [II. 100] when Pandarus approaches her with his ‘uncle’ proposition. In a felicitous touch Gower has Amans’ fantasy feasting on the story of Troilus (presumably from Chaucer’s text, which was dedicated to Gower), as the lover panders his imagination with happy love thoughts, heedless of the poem’s dark conclusion.⁵⁷⁷

In spite of such hints, it is crucial to the function of the *Confessio*’s frame-narrative that the revelation of Amans’ age is reserved until the final book. By thus holding the revelation back, Gower opposes ‘chance’ and determinism and allows his audience to think of his narrative in terms of either, or both at the same time.

This or That: Chance and Choice in the *Confessio Amantis*

Gower’s other reference to probabilistic chance, in Book V, is found in the Tale of the Beggars and the Pasties, in which a King sets two pasties before two beggars, one of whom

⁵⁷⁷ Note to IV. 2795, in Gower, *Confessio Amantis*.

trusts in men's riches and the other in God's providence. Although the pasties are outwardly identical, one contains a capon and the other a wealth of florins. The mercantile beggar chooses first, and chooses wrongly, leaving the pasty of florins to his God-fearing companion. His disappointment teaches him to put his trust in God, not riches. Yet the conclusion to the tale is highly ambivalent:

Thus spak this begger his entente,
And povere he cam and povere he wente;
Of that he hath richesse soght,
His infortune it wolde noght.
So mai it schewe in sondri wise,
Betwen fortune and covoitise
The chance is cast upon a dee;
Bot yit fulofte a man mai se
Ynowe of suche natheles,
Whiche evere pute hemself in press
To gete hem good, and yit thei faile. (v. 2431-41)

Once again, as Bellhouse and Franklin point out, we have 'chance' in the context of dicing, another significant piece of evidence that there was 'a very rich representation of probabilistic ideas in the English culture' in the later Middle Ages.⁵⁷⁸ Yet there is a lot more to this tale than that.

The narrative is perhaps partially derived from a story in the *Gesta Romanorum*, in which a man finds a miser's lost fortune.⁵⁷⁹ When the miser arrives looking for the money, he is invited to choose one of three 'pastillos'. Unbeknown to him, one contains earth, one bones and the other contains the miser's money. Being greedy, the miser weighs the pastries and chooses the heaviest, which turns out to be full of earth. Thus the man concludes 'quod voluntas dei non est, quod ille miser pecuniam habeat' ('that it is not God's will that the miser should have the money'), and distributes the money to the poor instead.⁵⁸⁰ Gower is at some pains to emphasise the element of 'chance' in his version of the story: far from having

⁵⁷⁸ Bellhouse and Franklin, 'Language of Chance', p. 83.

⁵⁷⁹ The note to IV. 587, in Gower, *Confessio Amantis*, notes the similarity of the two stories, as does Macaulay in Gower, *Complete Works*, III, p. 496.

⁵⁸⁰ *Gesta Romanorum*, ed. by Oesterley, pp. 442-43.

the choice determined by the relative weights or other apparent merits of the pasties, Gower tells us that ‘outward thei were bothe tuo’ (v. 2413) and that the first beggar

sih hem, *bot he felte hem noght,*
So that upon his oghne thocht
He ches the capoun and forsok
That other, which his fela tok. (v. 2417-20: my emphasis)

In other words, Gower ensures that there is no external or material reason for the beggar’s choice.

Significantly, he does the same thing in his version of another story that finds a possible source in the *Gesta*, The Tale of the Two Coffers, which immediately precedes the Tale of the Beggars and the Pasties, and is possibly adapted from the *Gesta*’s ‘Story of the Three Caskets’.⁵⁸¹ Again, in the *Gesta* there are visible differences between the caskets, which provide a reason for the choice: they bear different inscriptions describing their contents, one promising just deserts, one promising nature’s desires, and the other promising what God has ordained. In the *Gesta*, the heroine chooses the third casket and is amply rewarded, just as the second beggar who trusts in God’s providence is rewarded in Gower’s Tale of the Beggars and the Pasties. However, in Gower’s Tale of the Two Coffers, the inscriptions are dropped and, on the contrary, the coffers are

of o semblance and of o make,
So lich that no lif thilke throwe
That on mai fro that other knowe. (v. 2296-98)

As Macaulay notes, ‘The coffers are exactly alike, and the very point of the situation lies in the fact that the choice is a purely fortuitous one’.⁵⁸² Or as Gower puts it, ‘It stant upon youre oghne chance’ (v. 2346).

Gower’s decision to remove any possible reason for choosing one coffer or pasty over another is significant in the light of the fourteenth-century controversies over free choice,

⁵⁸¹ *Early English Versions of the Gesta Romanorum*, pp. 294-306.

⁵⁸² Gower, *Complete Works*, III, p. 496.

between ‘the intellectualist or naturalist tradition associated with Aristotle and Thomas Aquinas, according to which the will is always subordinate to the intellect, and the voluntarist tradition of Augustine and Franciscan thinkers such as Duns Scotus and William of Ockham, which held that the will is sometimes capable of autonomous activity’.⁵⁸³ The most famous example of the problems associated with this controversy has been known since at least the seventeenth century as ‘Buridan’s Ass’.⁵⁸⁴ In fact, John Buridan was neither the originator of this puzzle (it is much older), nor, as far as modern scholarship can ascertain, did he ever use the example of a donkey to demonstrate it. The problem was known to late-medieval philosophy from Aristotle’s treatise *De caelo*, in the second book of which he discusses possible explanations of why the earth stays at the centre of the universe. He refers to, and dismisses as inadequate, the argument that the earth is ‘indifferently related to every extreme point’, which he explains with the analogy of a man ‘who, though exceedingly hungry and thirsty, and both equally, yet being equidistant from food and drink, is therefore bound to stay where he is’.⁵⁸⁵ Buridan’s presentation of the problem appears only in his little known *Expositio libri De caelo et mundo* (not in the better known *Quaestiones super libris quatuor De caelo et mundo*), where he imagines a dog, not an ass, in place of Aristotle’s man.⁵⁸⁶ ‘in a question to the *Metaphysics*, he explains why: A human being, by a mere act of will, can choose to go left or go right *or stay in the same place*; “otherwise he would not have more freedom of will than a dog.”’⁵⁸⁷ Buridan’s argument that a man’s free will might *for a time* consist in deferring action when intellectual judgment is inconclusive is probably the reason that his name was popularly associated with a ‘dilemma [which] was a favorite one in logical

⁵⁸³ Zupko, ‘John Buridan’, in *SEP*.

⁵⁸⁴ For a more detailed history of the problem, see Rescher, *History of Logic*, pp. 94-110. For a brief discussion of the problem in relation to Chaucer, see Lynch, “Parliament of Fowls”, pp. 7-10.

⁵⁸⁵ Aristotle, *On The Heavens*, II, 295b, trans. by Stocks, p. 486, lines 23-24 and lines 31-33.

⁵⁸⁶ Langholm, ‘Buridan on Value’, p. 285; citing Buridan, *Expositio libri De caelo et mundo*: Vatican, Biblioteca Apostolica Vaticana Vat. lat. 2162, fol. 71^{va}.

⁵⁸⁷ Langholm, ‘Buridan on Value’, p. 286 (my emphasis); citing Buridan, *In Metaphysicem Aristotelis Quaestiones*, Q. 6.5: (Paris: 1518), fol. 36^{vb}. Nicholas Rescher understands Buridan’s position as even more strongly on the side of intellectual determinism: see Rescher, *History of Logic*, pp. 110-11.

analysis both before and after him, particularly with reference to determinism and free will',⁵⁸⁸

Late-medieval literary texts not only bear witness to the widespread knowledge (and basic understanding) of such controversies, but are also in turn the vehicles of them. A similar analogy is found, for example, in Dante's 'Paradiso':

Intra due cibi, distanti e moventi
d'un modo, prima si morria di fame,
che liber'omo l'un recasse ai denti;

sì si starebbe un agno intra due brame
di fieri lupi, igualmente temendo;
sì si starebbe un cane intra due dame[.]

(Before a man bit into one of two
foods equally removed and tempting, he
would die of hunger if his choice were free;

so would a lamb stand motionless between
the cravings of two savage wolves, in fear
of both; so would a dog between two deer[.]⁵⁸⁹)

Here Dante supplements Aristotle's starving man with a hungry dog; it is even just conceivable that Buridan's dog was inspired by Dante's. Yet the fact that this analogy originated and continued to be used in an astronomical context even after it had entered the literary sphere illustrates once again the inseparable nature of the nexus of ideas surrounding causation in the Middle Ages, which Gower discusses in the *Confessio*, and which I have already discussed in relation to the *De vetula*, Bradwardine, Oresme and others: free will, determinism, astrology and chance cannot be treated separately.

How is all this relevant to Gower's two tales of choice? Gower removes all external indications of the difference between the two caskets or two pasties, but it is crucial that, unlike Dante's two dishes, the two objects are actually very different. Although they look the

⁵⁸⁸ Langholm, 'Buridan on Value' p. 285. See Zupko, *John Buridan: Portrait*, pp. 251-253.

⁵⁸⁹ Dante, *Comedia*, 'Paradiso', IV. 1-6; the translation is taken from the same edition.

same, one is full of gold and the other is not, but the chooser simply does not know which is which. Gower therefore employs the language of ‘chance’ to explain the choice, and the Latin gloss takes it further, asserting that the beggars chose the pies ‘*sorte*’, by lot.⁵⁹⁰ In medieval Latin, ‘sors’ could also denote a share or invested capital. The pie-choice is indeed a kind of investment: each beggar has a pie, but one pie contains a return and the other does not, just as Olivi and others thought that a ‘sors’ (investment) ‘contained’ a potentiality, or probability of making a return.⁵⁹¹

In the context of late-medieval assessments of probability, both Gower’s choice of dicing as an analogy and the gloss’s possible association of the pie-choice with capital investment suggest that not all outcomes are equally likely. In fact, that is the whole point of both tales: there are hidden factors in each game that are not fully revealed until its conclusion. In the Tale of the Two Coffers, the King’s intention is to reveal to his unadvanced subjects that ‘fortune’ is against them. In the Tale of the Beggars and the Pasties, it is God’s help (v. 2426) that, implicitly, influences the outcome of the contest. The scenarios seem designed to illustrate that, although men undoubtedly make choices, human choice is not in itself a sufficient explanation of why one gambler (or lover) wins, and another loses. However, neither is chance itself *entirely* a matter of luck: there are deeper, mathematical factors involved, which, when grasped by the intellect, allow a more rational *choice* to be made. There are also other causative factors lurking behind the scenes, especially the hidden will of God. Thus Gower conducts, in philosophical and literary terms, a highly complex discussion of the competing fourteenth-century explanations of causation, including those elements of it which involved ‘cutting edge’ mathematics.

Gower’s playful but erudite exploration of the philosophy of causation has a direct effect on the *experience* of an informed reading of the *Confessio*. The audience are

⁵⁹⁰ Latin marginalia to v. 2395, in Gower, *Confessio Amantis*.

⁵⁹¹ Kaye, *Economy and Nature*, pp. 121-22.

themselves put in the position of gamblers, trying throughout the text to predict the ultimate outcome of Amans' love-game. Gower drops hints throughout the text that encourage such readerly guesswork, thus making the audience themselves participants in a sort of gambling game. At the same time, however, Gower's presentation of a dazzling array of causative theories (divine predestination, fate, fortune, human choice, probabilistic chance) is designed to obscure the end result, right up until the moment of the denouement. Even then, Gower's hints in some of his exempla that love is immune to the hard, cold logic of ageing preserve a faint hope for a miraculous solution to the problem, just to keep the guessing game going. The sheer intellectual *fun* of Gower's playful narrative technique must not be underemphasised.

At the same time the literary failure of most readers to predict the outcome of the love-suit also serves as a metaphor for the philosophical failure of human beings to get to grips with the complexities of causation. After his disappointment, and in order to assuage it, the narrator provides a long list of other great thinkers and writers who have fared no better. Within this list appears, not entirely unexpectedly, Aristotle himself, whose legendary amorous escapade and subsequent humiliation was a story widely told.⁵⁹² However, it is interesting that Gower chooses to emphasise, not Aristotle's lack of self-control or indiscretion, but the failure of his 'logique' (VIII. 2709). Lacking the power to resist love's 'Silogime' (VIII. 2708), he was 'concluded / To love' (VIII. 2712-13). The return to the technical terminology of consequential logic, which Gower employed earlier in the *Confessio* to discuss supplantation, is striking. Confronted with love in fact, Aristotle 'foryat al his logique' (VIII. 2709). In particular, Gower means, I suspect, that Aristotle forgot that he, like Amans, was *old* and that he, like Amphytrion, was not the lady's husband. He too, in other words, was guilty of 'a fals collacioun' (II. 2328).

⁵⁹² 'Note to VIII. 2705', in Gower, *Confessio Amantis*.

Just as Amans is consoled by the distinguished company with which he shares his failure in the game of love, the audience too is consoled in our failure to predict the outcome. Yet the explicit emphasis on logic in this passage broadens that consolation beyond our literary failure, to our philosophical failure. Even Aristotle's logic was not good enough to keep a firm grasp on the complexities of causation. Even with the best will in the world and, more to the point, with the best mind in the world, things happens that we do not expect and are not prepared for. There is no simple explanation of why things happen as they do. That is why, as Gower points out in the Prologue, the Wycliffite heretics are wrong to hold onto a simplistic view of causation and 'make [...] non other skile' (PR. 380). Life is not as straightforward as that.

Ultimately, however, Gower is not recommending that we give up altogether the attempt to deal with the mutable world rationally. His emphasis on quasi-probabilistic chance, through his recurrent use of the gambling motif, implies that, although our knowledge of the contingent future and its causes could never be total, nevertheless there are, broadly speaking, patterns that will emerge. Some bets are safer than others. Yet the essential point here is that Amans' age is a hidden variable throughout the majority of the *Confessio*. The audience's lack of knowledge about his age parallels the narrator's own lack of self-knowledge, leading both him and us to judge the 'chances' of the gamble incorrectly. The overarching confessional framework is, of course, designed precisely to encourage the same sort of self-knowledge. The irony is that Amans' fails to 'confess' (or indeed to recognise himself) the one really important piece of information that will sway the game. He fails to recognise his place in a fallen world, subject to a broad, ultimately inescapable process of temporal decay. Similarly, human choice is, for Gower, just one piece of the puzzle of causation; but we are more likely to make the right choices, to place winning bets in the game

of life, if we do not hide from ourselves the relevant facts about ourselves and about life in a mutable, postlapsarian world.

At the very end of Book VIII, Gower turns away from his discussion of this world and its erotic love, and towards another, immutable world of 'endeles' joy (VIII. 3172). Such a conclusion is, of course, standard in late-medieval literature. However, in this instance, Gower's employment of the technique carries philosophical weight. Throughout the *Confessio*, he has been exploring the logico-theological complexities of causation and future contingency. His discussion is inherently inseparable from the controversy over the interaction of divine predestination and free will in the matter of human salvation (even his use of the dicing metaphor, as Bradwardine shows); but Gower also takes pains explicitly to address that controversy early in the Prologue. He returns to it here, and the problem thus frames almost the entire text.⁵⁹³ By doing so, Gower allows the possibility that his presentation of the complexities of attaining love throughout the *Confessio* can be read as a metaphor for the difficulties in attaining salvation itself. Gower's final conclusion seems to be that such a question is just as inscrutable as the question of the causation of love, and that Christian 'charite' (VIII. 3164) is the only safe bet, if you want to escape this world of decay and uncertainty, and get to heaven. To return to my starting point, does my reading of the *Confessio* yield a 'moral' Gower or a 'philosophical' Gower? The answer, I think, is both. Moral Gower he may be, but he reaches his morality only via his philosophy, which is perhaps more rigorously attuned to logic and mathematics than his modern readers have generally recognised.

⁵⁹³ The Latin gloss notices another aspect of Gower's circularity and stresses his central interest in the problematic *causation* of love: '*Hic in fine recapitulat super hoc quod in principio libri primi promisit se in amoris causa specialius tractaturum. Concludit enim quod omnis amoris delectatio extra caritatem nichil est. Qui autem manet in caritate, in deo manet.* [Here at the end he recapitulates concerning what in the beginning of the first book he promised he would particularly treat in the cause of love. For he concludes that all pleasure of love beyond charity is nothing. "Who remains in love, he remains in God."] The reference is to 1 John 4:16.' (Latin marginalia and note to VIII. 3108, in Gower, *Confessio Amantis*.)

CHAPTER 4:

EXTREME PROMISES AND PARADOXES IN THE WORKS OF THE GAWAIN-POET

In this chapter, I consider an author whose connection to a known logician or school is impossible to demonstrate, simply because nothing is known of his biography: namely, the *Gawain*-poet. One purpose of this move is to show how logical dimensions can be discovered even in the work of authors who we have no verifiable biographical reason to suspect had particular connections with the world of scholastic logic.

Sir Gawain and the Green Knight

Tied up in Knots

It makes sense to begin an analysis of the *Gawain*-poet's employment of logical tropes and concerns with a brief examination of the most obviously paradoxical image he uses. I have discussed elsewhere how the mathematical qualities of the pentangle, both arithmetical and geometrical, make it the perfect symbol of paradox in *Sir Gawain*.⁵⁹⁴ Thomas Farrell has also demonstrated that the pentangle 'was the most difficult polygonal construction known to the Middle Ages', and Euclid's exercise to construct a pentangle 'presupposes the mastery of forty-seven previous propositions'.⁵⁹⁵ He goes on to note that 'at Oxford in the fourteenth

⁵⁹⁴ Baker, 'Gödel in *Gawain*', pp. 357-59.

⁵⁹⁵ Farrell, 'Life And Art', pp. 22-23.

century, the study of six books of Euclid (including therefore the construction of the pentangle) was required before inception [...], and Bradwardine's *Geometria Speculativa*, still influenced by Euclid [...], contains a discussion of the pentangle'.⁵⁹⁶ The pentangle could therefore also represent, for a fourteenth-century audience, the complex operations of arithmetic and geometry, and might be used as a convenient symbol of a scholar who had mastered both aspects of the quadrivium. More specifically, it could also be interpreted both as a symbol of paradox and as a proud boast of the intellectual ability to solve difficult mathematical problems. It is the perfect emblem for Sir Gawain, a man who is caught in a puzzle that is much harder to solve than he first thought.

The *Gawain*-poet, however, not only employs the Greek term, pentangle, but also complements it with what he identifies as an English equivalent, the 'endeles knot' (629-30).⁵⁹⁷ Just as Sir Gawain begins his quest for a resolution of the beheading game under the symbol of an 'endeles knot' (630), so Thomas Bradwardine begins his quest for a resolution to the logical insolubles, which so puzzled late-medieval thinkers, with the same image:

'Solvere non est ignorantis vinculum,'
3^o *Metaphysice*, capitulo primo.

Qui ergo insolubilium vinculi sunt ignari nodum illorum ambiguum nequerunt aperire, sed huiusmodi vinculo ut bruta fubiculo [in] demum adducuntur. Ut igitur illorum facilius solutio habeatur, istud vinculum latenter absconditum volumus denodare.

('To untie a knot is not a job for the nitwit.'
(Aristotle, *Metaphysics* B 1)

Aristotle means that those who are unacquainted with the tangle of the insolubles are unable to release their Janus-faced [ambiguum] grip, but are sure in the end to be brought to heel by a knot of this kind like

⁵⁹⁶ Farrell, 'Life and Art', p. 30 (note). It should be noted that Bradwardine's authorship of this text has not always been unchallenged. See Cajori, *Elementary Mathematics*, p. 136. Sharpe, however, lists it as one of Bradwardine's works (*A Handlist*, p. 644).

⁵⁹⁷ All quotations taken from *Sir Gawain and the Green Knight*, ed. by Tolkien and Gordon. Further references will be incorporated into the text. For a brief discussion of the classical literary and Boethian aspects of literary and philosophical 'knottiness', see Blamires, 'Philosophical Sleaze?', pp. 632-34.

an animal on a short leash. In order to obtain their solution more readily, we need to release this secretly hidden knot.)⁵⁹⁸

Bradwardine is recycling a quotation from Aristotle that was also employed by Aquinas in his commentary on the *Metaphysics*:⁵⁹⁹

Manifestum est autem in solutione corporalium ligaminum, quod ille qui ignorat vinculum, non potest solvere ipsum. Dubitatio autem de aliqua re hoc modo se habet ad mentem, sicut vinculum corporale ad corpus, et eundem effectum demonstrat. In quantum enim aliquis dubitat, in quantum patitur aliquid simile his qui sunt stricte ligati. Sicut enim ille qui habet pedes ligatos, non potest in anteriora procedere secundum viam corporalem, ita ille qui dubitat, quasi habens mentem ligatam, non potest ad anteriora procedere secundum viam speculationis. Et ideo sicut ille qui vult solvere vinculum corporale, oportet quod prius inspiciat vinculum et modum ligationis, ita ille qui vult solvere dubitationem, oportet quod prius speculetur omnes difficultates et earum causas.⁶⁰⁰

(Now in loosening a physical knot it is evident that one who is unacquainted with this knot cannot loosen it. But a difficulty about some subject is related to the mind as a physical knot is to the body, and manifests the same effect. For insofar as the mind is puzzled about some subject, it experiences something similar to those who are tightly bound. For just as one whose feet are tied cannot move forward on an earthly road, in a similar way one who is puzzled, and whose mind is bound, as it were, cannot move forward on the road of speculative knowledge. Therefore, just as one who wishes to loosen a physical knot must first of all inspect the knot and the way in which it is tied, in a similar way one who wants to solve a problem must first survey all the difficulties and the reasons for them.)⁶⁰¹

Both Aristotle and Aquinas apply the simile to philosophical problems in general; Bradwardine, on the other hand, applies the figure *specifically* to the *insolubilia*.

He returns to it twice more in the course of his treatise. He explicitly draws out the physical parallel, as Aquinas had done, but again goes further in tying the image to a specifically logical methodology:

⁵⁹⁸ Bradwardine, *Insolubilia*, pp. 60-61. All translations of this text are Read's unless stated otherwise. I have added the Latin answering Read's 'Janus-faced'. Read's translation here is loose – one of the perils for a literary critic in dealing with texts edited or translated primarily with their logical and structural, rather than their literary, features in mind.

⁵⁹⁹ See *Metaphysics*, III, 995a, trans. by Ross, p. 1572. Ross's translation of Aristotle's phrase runs: 'it is not possible to untie a knot which one does not know'.

⁶⁰⁰ Aquinas, *In duodecim libros Metaphysicorum expositio*, 3. 1, n. 2.

⁶⁰¹ Aquinas, *Commentary*, trans. by Rowan, 3. 1. 339.

Scias ergo quod insolubile accipitur dupliciter secundum quod solubile sive solutio. Solutio vero quedam est corporalis et propria, scilicet nodi sive ligamenti corporalis aperitio; quedam est intellectualis et similitudinaria, scilicet ligamenti mentalis, id est falsi sillogismi manifestatio.

(You should know that ‘insoluble’ can be taken in two ways according to what is soluble or the solution. Indeed, some solutions are physical and literal, namely, the releasing of a physical tie or knot, while others are intellectual and by analogy, that is, <the releasing> of a mental tangle, namely, the revealing of a false syllogism.)⁶⁰²

‘Scias’ here perhaps implies that Bradwardine is dealing with a staple of his subject, already generally accepted. The invocation of the ‘falsi sillogismi’ implies a much more careful mapping of the metaphor in Bradwardine than is found either in Aristotle or Aquinas. The lines of a sophistic syllogism are like the threads of a knot: give the right one a tug and the whole thing will fall apart easily; pick the wrong one, and you make the problem worse. Aquinas had developed Aristotle’s image by describing a man, tightly bound by the knot. Bradwardine takes the idea even further, comparing the man caught by the insoluble knot to an animal on a leash. On the one hand, the ‘nodum [...] *ambiguum*’ leaves the mind wandering around (the literal meaning of ‘ambiguus’);⁶⁰³ on the other hand, one ends up getting tied in knots and unable to move. The basic simile is picked up by at least two other treatises on the *insolubilia*, one of which is apparently attributed to William Heytesbury in one manuscript.⁶⁰⁴ It appears that by the fourteenth century, the insoluble knot had evolved from an image of the philosophical experience in general to become a fairly common conceit of the sophismatists in particular, at least amongst followers of Bradwardine.

⁶⁰² Bradwardine, *Insolubilia*, pp. 62-63. See also pp. 146-47.

⁶⁰³ Boethius similarly linked the ideas of knottiness and aimless wandering, using as an image of sophistical argument the ‘house of Didalus, so entrelaced that it is unable to be unlaced’ (*Boece*, III. pr. 12, 156-57). Kathryn Lynch relates this passage of Boethius to the labyrinth in the ‘Domus Dedaly’ in the *House of Fame*, III. 1920-21: *Visions*, p. 70. Piero Boitani has similarly discussed certain logical aspects of the *House of Fame*: see ‘Chaucer’s Labyrinth’.

⁶⁰⁴ Oxford, Bodleian Library MS Canon. class. lat. 311, fols 33^v-35^v: see manuscript description in the online Jordanus catalogue. Alternatively, see Coxe, *Catalogi codicum manuscriptum Bibliothecae Bodleianae*, cols 246-47. See also the anonymous treatise given in Appendix C to Bradwardine, *Insolubilia*, pp. 206- 223 (pp. 208-209).

The experience of Sir Gawain maps very neatly onto the experience of attempting to unravel the *insolubilia*, as described by Bradwardine.⁶⁰⁵ In fact, the word ‘nodus’, used repeatedly by Bradwardine to describe an insoluble, can also denote both a girdle and a human bond of obligation.⁶⁰⁶ Thus, under a bond of obligation, Gawain sets out upon his own literally ‘ambiguous’ journey (‘Mony wylsum way he rode’: 689) under the sign of an ‘endeles knot’, and ends up himself being literally tied in a ‘knot’ (2487), the girdle, and caught in a trap like one of the animals hunted by Bertilak.⁶⁰⁷ The *Gawain*-poet even describes the poem itself as being written ‘with lel letteres loken’ (35), which Helen Cooper interprets as referring to his use of alliteration.⁶⁰⁸ Similarly, the poet draws attention to the fact that in the symbol of the pentangle, ‘vche lyne vmbelapez and loukez in oþer’ (628), and, by reading the word ‘lyne’ literally, this description can also be applied to the interconnectedness of the text itself. Together the lines of the poem form an insoluble knot, just like the lines of Bradwardine’s syllogism. The complex interweaving of the text itself is part of the poet’s presentation of the ‘knottiness’ of the paradoxes with which it is concerned.⁶⁰⁹ Bradwardine himself applies the image of the knot to the Liar paradox, and particularly to the two-stage evolutions of that paradox which he is credited with developing. All these knotty images take root in the initial beheading contest at Arthur’s festive dinner party. First I will discuss the context of the dinner itself; then I will explore the precise logical analogues of the mutual beheading scenario.

⁶⁰⁵ It is important to acknowledge, however, that the *Gawain*-poet’s use of the sophismatic symbol of the ‘knot’ does not necessarily imply that he shares the late-medieval logician’s desire to untangle it: indeed, the glory of the ‘endeles knot’ appears to lie, for the *Gawain*-poet at least, in its real insolubility. For more on the ambivalent attitude towards paradox exhibited in the poem, see Baker, ‘Gödel in *Gawain*’.

⁶⁰⁶ For girdle, see OLD, ‘nodus’, 2c. For some reason, the OLD does not give the figurative meaning of the term as a human bond. See Lewis and Short, *A Latin Dictionary*, ‘nodus’, II. b. 1.

⁶⁰⁷ R. Allen Shoaf also points out the girdle’s knotty nature in his analysis of it as replacement for the ‘endeles knot’ of the pentangle. Shoaf and Burrow, who he partially follows, both discuss the pentangle as a symbol of ‘truth’ more generally, although their reading of the poet’s concerns diverges from my own in a number of significant ways. See Shoaf, *Poem as Green Girdle*, Chapter 4.i, who also cites Burrow, *A Reading of ‘Sir Gawain’*, pp. 158-59.

⁶⁰⁸ Cooper, ‘Notes’ in *Sir Gawain and the Green Knight*, trans. by Keith Harrison, p. 91.

⁶⁰⁹ See Baker, ‘Gödel in *Gawain*’, pp. 361-62.

A Sophistical Supper

Near the beginning of *Sir Gawain*, we are told of an apparently peculiar custom of King Arthur:

he wolde neuer ete
Vpon such a dere day er hym deuised were
Of sum auenturus þyng an vncouþe tale,
Of sum mayn meruayle þat he myȝt trawe,
Of alderes, of armes, of oþer auenturus,
Oþer sum segg hym bisoȝt of sum siker knyȝt
To joyne wyth hym in iustyng, in jopardé to lay,
Lede, lif for lyf, leue vchon oþer,
As fortune wolde fulsun hom, þe fayrer to haue. (91-99)

Arthur's desire for someone to 'devise' for him a strange tale is arguably satisfied by the account of the beheading contest with which the narrator fills the narrative space before Arthur eats. This reading is strengthened by the fact that the poet pointedly describes both his own tale and the tale that Arthur wishes to hear in terms of an 'adventure': in fact, he uses the term twice in each case ('aunter' (27); 'awenture' (29); 'auenturous' (93); 'auenturus' (95)).⁶¹⁰ Alternatively, Arthur would be happy to watch a physical contest of 'iustyng', where lives are at stake (97-98). This desire, too, is fulfilled in the beheading game.

Yet it also has been suggested that Arthur might be half-expecting a battle of brains, as much as of brawn. Thomas Rendall has argued that Arthur's desire for pre-prandial entertainment is broad enough to include a wager on a chess game. He does so by reading the term 'jopardé' in line 97 not merely as 'hazard', but specifically as referring to the *jeu parti*, the sort of chess problem perhaps also alluded to by Chaucer in the *Book of the Duchess*.⁶¹¹ Rendall's suggestion is valuable, but I would like to suggest an alternative. There is no real evidence that a fourteenth-century audience might have expected Arthur to watch specifically a game of chess at dinner, and neither is it clear how the beheading contest is to be seen in

⁶¹⁰ I argue this point more broadly, and explore how the suggestion of an embedded narrative creates a logical paradox of self-reference, in Baker, 'Gödel in *Gawain*', pp. 362-363.

⁶¹¹ Rendall, "'Gawain' and the Game of Chess", pp. 188-90. See *Book of the Duchess*, 666.

terms of a chess game. Rendall's reading of jousting in 'jopardé' as a reference to some sort of intellectual contest is more justifiable if the scope of the puzzle intended is broadened beyond chess.

The uses of the term 'jopardé' in Middle English are various. In the context of the above passage, the word's primary denotation seems simply to be 'danger'. Yet it is clear that, in addition to its relation to chess, it could carry connotations of debate, or more generally of a trick. Guillemette Bolens and Paul Taylor argue, for instance, that Chaucer's use of 'jeopardyes' in the *Book of the Duchess* is also to be associated with the *jeu-parti*, the 'form of poetic débat particularly popular in the thirteenth century', through the medium of the 'judgement' genre', upon which, as has been well established, Chaucer's poem draws.⁶¹² In addition, the term 'jopardé' can denote a 'trick' or piece of cunning, as in *Dame Sirith*, 275-76: 'For I shal don a iupertu / And a ferli maistri'.⁶¹³ Here the 'trick' forms part of a sophisticated argument made on behalf of a clerk, to convince his victim that her daughter is a dog: a proposition that is in itself very reminiscent of the recurrent strain of 'animal transformations' in the *sophismata*.⁶¹⁴ Therefore, it is not implausible to read into the *Gawain*-poet's use of the term a secondary implication that some kind of puzzle or more intellectual contest will accompany the physical 'joust' of the beheading game. There is also a fairly extensive range of evidence to suggest that the consideration of an intellectual puzzle in the middle of a feast would not have been entirely unexpected by a fourteenth-century audience.

⁶¹² Bolens and Taylor, 'Game of Chess', pp. 331-32. See also Långfors (ed.), *Recueil général des jeux-partis*, esp. I, pp. v-vi: 'Le jeu-parti, dans son type normal, est une pièce lyrique de six couplets suivis de deux envois: dans le premier couplet, l'un des deux partenaires propose à l'autre une question dilemmatique et, celui-ci ayant fait son choix, soutient lui-même l'alternative restée disponible. Dans les deux envois, chacun des deux partenaires nomme un juge. Il n'y a dans les textes aucune trace d'un jugement que ceux-ci auraient prononcé.'

⁶¹³ *Dame Sirith*, ed. by Eve Salisbury. See also MED, 'jupartu', 4.b, which cites this passage.

⁶¹⁴ Buridan, for example, discusses the proposition 'This dog is your father': Buridan, *Sophisms*, p. 121 (Chapter 4, Sophism 7).

The idea that a king might engage in some sort of intellectual puzzle before dining is attested in literature and in fact. One example is Arthur's seating puzzle, 'a fourteenth-century problem or game in numbers and moves set by King Arthur during an Easter feast at Paris while rewarding his knights for their service in conquering France from the Roman Frolle [which] occurs as a chapter in a few of the manuscripts of the Anglo-Norman *Prose Brut*'.⁶¹⁵ The puzzle concerns how the knights are to sit at table, and after dinner Arthur complicates the challenge further by introducing other moves involving four Cornish knights. The solution is not explained but 'the Royal MS. drawing shows a hollow square with three pieces at each corner and three on each side; four additional pieces placed outside of the side groups represent the four Cornish knights'. Although on face value it seems similar, 'Arthur's game does not seem to be related to such medieval games as tables' or, it may be added, chess. Rather the problem is an intellectual teaser. Understood in this way, the table seating episode could perhaps be taken as a semi-realistic depiction of the sort of pre-prandial entertainment enjoyed in some courts of the later Middle Ages.

Jan Ziolkowski details a letter to Manegold of Paderborn from Wibald of Stavelot (1098-1158) which 'relates how such *sophismata* were greeted in the twelfth-century equivalent of cocktail parties', narrating how King Conrad had been 'captivated' by the sophisms of 'lettered men' over dinner, including one proving that he had three eyes (Do you have an eye? Do you have two eyes? $1+2=3$). Reference is also made to the infamous sophistical proofs that man is an ass. As Ziolkowski remarks, 'this anecdote demonstrates the extent to which sophistries were judged humorous: a ridiculous sophism constituted suitable entertainment for a king at a banquet'.⁶¹⁶ The example of the three-eyed man is no mere popular riddle, but a very accurate reflection of the stock examples used by late-medieval sophismatists, even into the fourteenth century, both in terms of imagery and structure.

⁶¹⁵ Dean and Boulton, *Anglo-Norman Literature*, no. 230.

⁶¹⁶ Ziolkowski, 'Humour of Logic', pp. 10-11.

William Heytesbury, for instance, tackles the sophism ‘Neutrum oculum habendo tu potes videre’ (‘Having neither eye, you can still see’), which he ‘proves’ by demonstrating that you are able to see without your right eye and you are able to see without your left eye, therefore you are able to see having neither eye.⁶¹⁷ Similarly, in denying the sophism ‘Omnis homo et duo homines sunt tres’ (‘Every man and two men are three’), he gives the example that ‘Socrates et duo homines non sunt tres homines: quia Socrates et Plato non sunt tres, et Socrates et Socrates et Plato sunt aliquis homo et duo homines’ (‘Socrates and two men are not three men: because Socrates and Plato are not three men, and Socrates and <Socrates and Plato> are a man and two men’). In other words, the basic addition that one man and two men equals three men does not hold in the case where Socrates is the one man, and Socrates and Plato are the two men. Thus Heytesbury repudiates the faulty arithmetic underlying Manegold’s example.⁶¹⁸

Another anecdote, from Gerald of Wales (1147-1223), also situates sophistic exploits at the dinner table, albeit a humbler one than Conrad’s. He tells of

a young man who, after spending five years at great expense in Paris, returned home qualified to prove to his father that the six eggs on the table were twelve. After he had offered his proof, his father devoured the six eggs that could be seen and left him the six that the hen of his logic had laid. With this admonition, the young man was allowed to return to Paris.⁶¹⁹

More generally, Brian Lawn has argued that ‘the method of the short *quaestiones et responsiones* was [by the later Middle Ages] being used not for purely didactic purposes in the classrooms, but also as the basis for “polite conversations” among men “of divers states and conditions” – a form of informal converse which was to be of increasing importance in

⁶¹⁷ Heytesbury, *Sophismata* (Sophism 9, p. 2, fols 116^{rb}-121^{vb} (fol. 116^{va})).

⁶¹⁸ Heytesbury, *Sophismata* (Sophism 16, p. 1, fols 127^{va}-129^{ra} (fol. 127^{va})).

⁶¹⁹ Ziolkowski, ‘Humour of Logic’, p. 12; citing Gerald of Wales, *Gemma ecclesiastica*, Dist. 2, cap. 37, in *Opera*, ed. by J. S. Brewer, James F. Dimock and George F. Warner, 8 vols (London: 1861-91), II, pp. 349-50. The translation is taken from John J. Hagen, *The Jewel of the Church* (Leiden: Brill, 1979), pp. 266-67.

the 16th and 17th centuries for the discussion and propagation of scientific ideas'.⁶²⁰ To take another literary example, Timothy O'Brien points out that even the debate and ultimate solution of the 'impossible' in the Summoner's Tale is drawing on the context of Lawn's 'informal converse' about the latest logico-scientific ideas taking place in everyday life far beyond the universities.⁶²¹ It is surely no coincidence, then, that Chaucer chooses to set the discussion about how to divide the indivisible fart when the 'lord of that village [...] sat etyng at his bord' (III. 2165-67). Evidently dinner-time was the conventional occasion for discussing such *sophismata*, even one as naturally distasteful as the Summoner's.

There is also perhaps a hint of a dinner-time association in the repeated use of food and dining references in the *sophismata* themselves. Buridan, for example, posits the sophism 'Socrates wishes to eat'. In explanation, Buridan describes a rather awkward-sounding dinner-party in which Socrates will not eat unless his companion (in this case Plato) eats too, for as Buridan explains, 'men often wish so to have company in eating, so that without company they do not wish to eat'.⁶²² Socrates, it seems, shares the good manners of Arthur in *Sir Gawain*, who 'wolde not ete til al were serued' (85). Rather rudely, however, Buridan's Plato only wants to eat if Socrates does not eat. Buridan concludes:

But you ask whether, therefore, Socrates wishes to eat or not. I say unless Socrates and Plato have other acts of willing than the preceding, neither wishes to eat here, since the will is determined to that which one wills. And the will of neither of them is determined to eating.⁶²³

Thus, it seems, the whole meal is indefinitely delayed by paradox. Yet there is more to Buridan's sophism than that: it can also shed some logical light on the beheading game itself.

⁶²⁰ Lawn, *Salernitan Questions*, p. 105. O'Brien also cites this passage ('Ars-Metrik', p. 20).

⁶²¹ O'Brien, 'Ars-Metrik', p. 20. Roy Percy similarly argues that the dinnertime setting of the denouement of the Summoner's Tale reflects the public 'spectacle' of scholastic *disputationes*: see Percy, 'Chaucer's "An Impossible"', pp. 323-24.

⁶²² Buridan: *Sophisms*, p. 220 (Chapter 8, Sophism 18).

⁶²³ Buridan: *Sophisms*, p. 221 (Chapter 8, Discussion of Sophism 18).

Sophismata of Mutual Action and the Beheading Game

Buridan's 'eating' sophism is an example of a kind of sophism that is very similar in structure to the impossible proposition put by the Green Knight, which also creates a paradox. The agreement between Gawain and the Green Knight is that Gawain may deal a blow to the Green Knight if and only if he agrees to receive the same kind of blow ('such a dunt as Þou hatz dalt': 452) in return. The formal agreement that Gawain makes with his opponent speaks unconditionally of the return blow:

'In god fayth,' quop þe goode knyzt, 'Gawan I hatte,
þat bede þe þis buffet, quat-so bifallez after,
And at þis tyme twelmonyth take at þe an oþer
Wyth what weppen so þou wylt, and wyth no wy3 ellez
on lyue.' (381-85)

Gawain is clear that he *will* 'take [...] an oþer' blow from the Green Knight a year later. His two brief additions to the agreement suggest that he has by no means missed the absurdity of the proposition. He gives the blow 'quat-so bifallez after' (an indication that he doubts that the return will ever be made); and he is careful to specify that no one else can fill the place of the Green Knight in the second leg of the contest ('wyth no wy3 ellez': if the Green Knight does not behead Gawain, then no one is allowed do it for him). The Green Knight notices Gawain's equivocation, and alludes to it light-heartedly, pointing out that unless he is able to tell Gawain where to find him after he is beheaded, Gawain will escape his fate:

And if I spende no speche, þenne spedez þou þe better,
For þou may leng in þy londe and layt no fyrre –
bot slokes! (410-12).

Importantly for a 'moral' reading of the narrative, Gawain's hedging of the agreement to his own advantage rather undermines the profession of 'god fayth' with which he begins his speech.

At the same time, Gawain's second addition to the agreement also serves to emphasise its sophistic nature. His careful clarification that he will take the return blow from the Green Knight and from 'no wy3 ellez' imbues the agreement with the precise style of a logical proposition. It functions in a similar way to the phrase 'and not otherwise': at the end of Buridan's curse sophism, for example.⁶²⁴ It also shuts out the only real possibility for the agreement to be kept: Gawain could behead the Green Knight, and someone else could behead Gawain on the Green Knight's behalf. Gawain's exclusion of that option turns the agreement right back on itself, forcing it into something very close to the shape of the *sophismata* of mutual action discussed above:

A) Gawain will behead the Green Knight if the Green Knight (and only the Green Knight) will behead Gawain.

This move is perhaps deliberate on Gawain's part, but it is ultimately futile. Gawain's vain hope of emerging unhurt from the conflict is founded in his belief in its impossibility, since impossible conditions were, *in theory*, non-binding in medieval law. However, Gawain's belief in the contract's impossibility would not, in medieval law, have invalidated the contract once it emerged that this belief was mistaken, and he finds himself still bound by his agreement.⁶²⁵

Still the proposition above is not quite a complete sophism. One final clause is needed:

B) Gawain will behead the Green Knight if the Green Knight (and only the Green Knight) will behead Gawain, *and not otherwise*.

The additional clause in B) closes down Gawain's 'wriggle-room' in A): namely, that he will give his blow, 'quat-so bifallez after'. In A), Gawain will behead the Green Knight even if, as Gawain expects, the Green Knight will not behead him. Yet when the Green Knight emerges

⁶²⁴ Buridan, *Sophisms*, p. 221 (Chapter 8, Sophism 19).

⁶²⁵ For discussions of medieval legal thought about impossible conditions in relation to The Franklin's Tale, see Green, *Crisis of Truth*, pp. 319-23; and Cartlidge, "'Nat that I chalange'", p. 122.

from the conflict still impossibly alive, Gawain finds that he has got more than he bargained for. The paradox has tightened, as it were, around his neck. He has been transported into the impossible world of the logical imagination, trapped in the ‘endeles knot’ of a fourteenth-century sophism.

As with many of the other interactions between fourteenth-century logic and literature that I have explored, it is not merely general structural concerns that the beheading contest shares with the *sophismata*, but specific imaginative tropes. The basic paradox underlying Gawain’s agreement with the Green Knight, that a dead man can himself kill the man who killed him, is actually treated in some detail in one of the *Sophismata* of William Heytesbury. Heytesbury is dealing with a sophism adapted from one of the *sophismata* of the thirteenth-century logician Ricardus Sophista, that ‘Quilibet homo morietur quando unus solus homo morietur’ (‘Any man will die when just one man dies’).⁶²⁶ However, Heytesbury, unlike his predecessor, spends the majority of his time on the question of the following casus:

ponatur quod Socrates vulneret Platonem laetaliter et e contra. Ponatur tamen quod Plato per duos dies postquam sustinuerit vulnus Socratis vivat et quod Socrates solum vivat per unum diem postquam sustinuerit vulnus Platonis, ita tamen quod uterque istorum morietur propter vulnera sibi illata.⁶²⁷

(The scenario is proposed that Socrates should mortally wound Plato and vice versa. Let’s assume however that Plato should live for two days after he has sustained the wound from Socrates and that Socrates should only live for one day after he has sustained the wound from Plato, while, however, each of them will die because of the wound inflicted on them.)

The problem is that, however you define ‘to kill’, whether it refers to the point at which the fatal wound was delivered or the point at which the victim died, still Socrates killed Plato *after* he had been killed *by* Plato. For if ‘to kill’ refers to the point of wounding, then, Heytesbury imagines that Socrates wounds Plato just after Plato wounds Socrates: so

⁶²⁶ See Richard the Sophist, *Abstractiones* (Richard’s form of words is slightly different: ‘Omnis homo morietur quando unus solus homo morietur’).

⁶²⁷ Heytesbury, *Sophismata* (Sophism 10, p. 2, fols 123^{va}-124^{ra} (fol. 123^{vb})).

Socrates has already been ‘killed’ before he strikes the return blow. If, on the other hand, ‘to kill’ refers to the point of death, then because Socrates dies before Plato, Socrates can still be said to have killed Plato after he himself had died. Heytesbury goes to some length to make the *casus* as plausible as possible: for although in this instance it seems clear that Heytesbury is imagining a private combat (rather like the beheading game), he later adds the example of an archer, presumably on the battlefield, who kills a man from long distance, but is himself killed before the arrow has hit its target. In that case, even the fatal wound is inflicted after the death of the killer, which is still more problematic.

The Limits of Logic and Law

One possible explanation for the effort Heytesbury makes to posit a realistic scenario is that his discussion, like other fourteenth-century *sophismata*, is *logically* concerned with a problem associated with fourteenth-century English *law*. Such an overlap between logical and legal problems is by no means rare: one favourite group of *sophismata*, for instance, investigated sophisticated methods of eluding debt (in relation to a nominalist doctrine of supposition).⁶²⁸ This is perhaps not surprising. As Neil Cartlidge has pointed out in relation to the contract at the heart of the Franklin’s Tale,

it is precisely because the law is so characteristically concerned with its own limits that legal discourse seems to contain a narrative drive towards the limits of plausibility – and with it a love of the improbable and the absurd that is sometimes just as rich as that to be found among practitioners of literature.⁶²⁹

Logic too is concerned with ‘cases’ (‘*casus*’) that verge on the very limit of the plausible: take, as just one example, Buridan’s extraordinary suggestion that you might see, from a distance, your father dressed up in a donkey-skin, walking around on his hands and feet, and

⁶²⁸ For a brief discussion of such sophisms, see Chapter 1.

⁶²⁹ Cartlidge, “‘Nat that I chalange’”, p. 118.

therefore give grounds for the assertion that you believe yourself to be the son of an ass.⁶³⁰ Late fourteenth-century texts that take a clear interest in intellectual problems, like *Sir Gawain* or indeed the Franklin's Tale, appear to harness the imaginative power of all three disciplines in *devising* (to use the *Gawain*-poet's term: *Sir Gawain*, 92) what could be called puzzle-stories.

In Heytesbury's case, the legal issue which his 'casus' of mutual killing seems designed to address is the amount of time a man may live after receiving a wound for his assailant still to be considered guilty of murder. The limit imposed on such a survival term was ultimately, of course, a year and day. Historians of law have tended to portray the rule as a later development of a statute of limitations first found in the 1278 Statute of Gloucester, which originally governed 'the time in which an individual might initiate a private appeal for murder' after the act of alleged murder was committed.⁶³¹ However, it seems that by the beginning of the fourteenth century the rule could be tied specifically to the timing of the infliction of the ultimately fatal wound, rather than to the later time of death. D. E. C. Yale draws attention to the following case, which strangely resembles the opening of *Sir Gawain*:

In the Easter term of 1301 the king's bench received an appeal of felony in which Richard of Shaftesbury accused Richard of Sotwell of his father's death. [...] His father had been assaulted with an axe on 7 December 1299 and had died on 6 January 1300. The writ was sued out on 27 January 1301. The appellee invoked the statute. He pleaded that a year and six weeks (*unus annus et sex septimanae*) had elapsed between felony done and writ sued out. The court accepted the plea. The plea can only refer to the time of axing and not the time of death. It is clear that the appellee counted from the death-dealing stroke, not the death.⁶³²

Since the murder writ could only be sued out after the victim's death, the implication is, of course, that if the time between the assault and the death is over a year, then the homicide is not actionable; and Yale argues that this logical extension of the rule is evident from another

⁶³⁰ Buridan, *Sophisms*, p. 125 (Chapter 4, Sophism 11).

⁶³¹ Walther, 'Taming a Phoenix', p. 1338.

⁶³² Yale, 'Year and a Day', p. 206.

case of 1329-30.⁶³³ It is therefore plausible that Heytesbury's discussion, of whether a man is killed at the moment of the fatal blow or at the moment of subsequent physical death, should be related to the evolution of the 'year and a day rule' in homicide.

Although there are original aspects to Heytesbury's treatment of this sophism, he is absolutely conventional in choosing the death of Socrates as a vehicle for examining temporal problems, especially in dealing with futurity. Buridan also makes use of it in his discussion of ampliation, and in an interesting way. Treating the sophism 'Socrates will die today' (Chapter 5, Sophism 10), Buridan posits that in fact 'for this whole day, or rather for a whole year after this, he will continue to live in good health'. Yet, Buridan goes on, it might still be argued that the sophism is true:

[it] is a sophism of the future. Hence, it is true, if sometime in the future a proposition of the present corresponding to it will be true. And yet it will be so, because I posit that he will die on the first day of next year.⁶³⁴

Buridan goes on to dismiss this argument, but it is sufficient to show that delayed deaths, especially those delayed beyond a year, were as logically problematic as they were legally disputable. It is unlikely that Buridan, in Paris, should have chosen this interval of time out of any concern with English law. Rather the first day of next year was probably chosen as a simple shorthand for a future time incontrovertibly distinct from the present, which is, presumably, the same reason that it was chosen for the statute of limitations in English law.⁶³⁵ Thus by setting the second phase of the combat a year and a day after the first (298), or on New Year's Day (the first day of the next year) (1054), the *Gawain*-poet places it at the furthest limit of the logical and legal present, as a logico-legal test case.⁶³⁶

⁶³³ Yale, 'Year and a Day', p. 204.

⁶³⁴ Buridan, *Sophisms*, p. 157 (Chapter 5, Discussion of Sophism 10).

⁶³⁵ Walther offers Sir Edward Coke's later explanation of the extra day: "regularly the law maketh no fraction of a day: and the day was added, that there might be a whole year at least after the stroke, or poyson, etc" Edward Coke, 3 *Institutes* 53 (Brooke, 2nd edn. 1809)' (Walther, 'Taming a Phoenix', p. 1338 (note)). The point of the term is that there should be a clear year between the two events, as in Buridan.

⁶³⁶ I am, of course, not the first to suggest the legal connection in regard to this detail of the *Gawain* narrative. See, for example, Blanch and Wasserman, 'Medieval Contracts', p. 601. In another article ('Legal Framework'),

The paradoxical agreement of *Sir Gawain and the Green Knight* can therefore be read as a literary sophism. It shares the new interest in mutuality by which insolubles such as the Liar paradox were being further developed. It seems to allude to problematically delayed deaths and the elision of present and future. In addition, it shares the same basic narrative structure as one of Heytesbury's *sophismata*, the same basic logical structure as a number of Buridan's, and it has the dinnertime setting conventionally ascribed to such puzzles.

The Limits of 'Trawþe'

What then is the function of the sophismatic agreement at the heart of *Sir Gawain*? As I read it, the *Gawain*-poet deliberately sets a 'casus' that tests the very limits of literary, legal and logical possibility. He thus generates a scenario in which he can rigorously examine a moral principle that stands at the heart of all four of his poems: 'trawþe' or covenant-keeping. The importance of keeping one's agreements is explicit in *Sir Gawain* and has been explored from various angles, both legal and theological.⁶³⁷ The idea that the *Gawain*-poet may be testing the extreme limits of such contractualisation has been noticed but perhaps not fully explored.

Paul Taylor, for example, briefly discusses one way in which Gawain's agreement is designed to stretch human 'trawþe' to its limits:

From his first sight of the Green Chapel he concludes that his opponent's identity is demonic (2193) – his five wits tell him so, and he is perfect in his five wits – and yet does not hesitate in his quest as

Blanch argues that the year-and-a-day rule was important to a range of different procedures in medieval English and Germanic law, including murder, since it would have been the soonest possible court date after a year. Thus the year-and-a-day limit sets up the Green Chapel encounter as a court date, with the Green Knight as a judge. He also refers to the medieval legal idea of 'mayhem' (loss of a body part) to be punished by the criminal losing the same body part. He therefore argues that Gawain's 'crime' of beheading the Green Knight would have ended up in a similar scenario to the Green Chapel scene a year and a day later, even if there had been no agreement.

⁶³⁷ See, for example, Green, *Crisis of Truth*, Chapters 8 and 9; Shoaf, *Poem as Green Girdle*, esp. Chapter 2 and Chapter 3.iii; Burrow, *A Reading of 'Sir Gawain'*, esp. pp. 22-23 and 66-69; Blanch and Wasserman, 'Medieval Contracts'; Paul Taylor, 'Commerce and Comedy'; Harwood, 'Gawain and the Gift'. Harwood (p. 488) touches upon late-medieval 'Pelagian' understandings of divine covenants, which I will discuss from a slightly different angle in relation to *Pearl* and *Patience*, below.

if a bargain with the devil must be respected like any other courtly obligation. All this is the stuff of comedy.⁶³⁸

Taylor concludes that this and other elements of the narrative are designed comically to undercut the hero. As he presents them, certain details of Gawain's behaviour do indeed produce humour. Such absurdities of human behaviour are also reminiscent of the fantastical scenarios of the *sophismata*. Why, to return to the example given earlier, would your father dress up as a donkey and walk towards you on all fours, as Buridan suggests? No motivation for such humanly inexplicable behaviour is given, because that is not really the point. The point is that if he did, would the logical principles under investigation still function correctly? The absurdity of such scenarios springs from their extremity, and their extremity springs from the need to test logical principles by pushing them to their limits. That is how *reductio ad absurdum* works. Just so in *Sir Gawain and the Green Knight*: an important aristocrat is to leave the court and travel to a mysterious 'Green Chapel' to have his head cut off by a 'dead' man, who is in some ways a monster, and also bright green, for no other reason than that he promised that he would. In spite of heading voluntarily towards his probable death, the nobleman is deemed to have failed to keep his 'trawþe' simply because he has dressed up in his opponent's wife's clothing in the belief that this might protect him. The absurdity of the 'casus' is its whole point: to what extreme can the chivalric notion of 'trawþe' be stretched? Under such conditions, can it maintain itself as a coherent and workable principle?

'Troth', in the sense of contractual fidelity, is not merely a moral principle in the poem: it is also inextricable from 'truth', in the philosophical sense of the word. Again, this general point has been made by others who have looked at the covenantal aspects of the text, but its significance becomes clearer in a specifically sophismatic context. As I discussed in Chapter 1, contracts or promises between two parties concerning future actions constitute a substantial subset of the fourteenth-century *sophismata*. Such *sophismata* are used in

⁶³⁸ Paul Taylor, 'Commerce and Comedy', p. 2.

discussion of the most important logical issues of the day: the Liar paradox, the nature of propositions about the future, and nominalist supposition theory. All of these logical concerns interact in the works of the *Gawain*-poet, as I will demonstrate in the rest of this chapter.

One example of the ‘contract’ *sophismata* that I mentioned briefly in Chapter 1 is the scenario, found in Bradwardine and Holcot, in which Plato (or whoever) promises Socrates a penny if the next thing that Socrates says is true, and not otherwise.⁶³⁹ Just as in the ‘Bridge’ sophism of which this is a form, and again for no rational motive that we are ever told, Socrates makes a rather unhelpful reply: ‘You will not give me a penny’. This witty retort turns an otherwise straightforward commercial transaction into a sophism of mutual action like Heytesbury’s combat sophism, and into a two-stage insoluble like Buridan’s dinner-party sophism. The sophistic agreement in *Sir Gawain* is also an agreement of reward and recompense: Gawain is given a material incentive to accept the proposition in the form of the axe.⁶⁴⁰ In Chapter 1, I also explored Buridan’s novel solution to the ‘Bridge’ sophism, which focused on the truth or falsehood of the various statements made within the ‘casus’ when understood as propositions about the future. The usual question asked in relation to the ‘Bridge’ and ‘Penny’ *sophismata* was, what should Plato do next? Should he let Socrates cross the bridge or not? Should he give him a penny, or not? In addition to addressing this question, Buridan considers the truth-value of the initial agreement as a statement about the future, concluding that Plato lied in his initial ultimatum, because although he could act as he promised in most cases, there are certain extreme cases in which he cannot fulfil his promise – and Socrates has found one of them.

In such *sophismata*, therefore, the ‘trawþe’ of an individual in keeping a promise and the ‘truth’ of the promise itself as a statement about the future are somewhat conflated. Plato is ‘untrue’ (he cannot satisfactorily keep his promise) because the promise itself was ‘untrue’

⁶³⁹ Bradwardine, *Insolubilia*, pp. 124-25; Holcot, ‘*Determinationes*’, sign. E iii^{va}.

⁶⁴⁰ Shoaf (*Poem as Green Girdle*) explores the commercial aspects of the text more broadly.

(as a proposition about the future). In *Sir Gawain* too, Gawain is ‘falce’ (2382) and guilty of ‘vntrawþe’ (2383) because he has made (what at least he thought at the time to be) a false proposition about the future, in swearing that he will take a blow from the Green Knight a year and a day after he has cut off the Green Knight’s head. Thus Gawain’s failure to keep his covenant must be seen in the context of the fourteenth-century logico-theological discussions of the future, and I will return to this point in relation to the *Gawain*-poet’s other works.

I mentioned above the association of the pentangle with the most difficult late-medieval mathematics, and I have argued elsewhere that its geometrical and arithmetical properties make it a uniquely potent symbol of medieval paradoxes to do with mathematical infinity and infinitesimality.⁶⁴¹ The ‘beheading’ agreement fulfils this aspect of its symbolism too. Other fourteenth-century ‘contract’ and ‘reward’ *sophismata* take a distinctly mathematical approach to problems relating to contracts of merit and reward. For example, Holcot considers the question ‘Vtrum aliquis in casu possit ex precepto obligari ad aliquid quod est contra conscientiam suam’ (‘Whether anyone in any situation could be obliged by command to do anything that is against his conscience’).⁶⁴² This is essentially the same problem that Roger Rosetus tackles in his treatise *De maximo et minimo*, as summarised by Curtis Wilson:

whether a frater can be obligated by a precept of the prelate to the performance of a task – say, the reading of sacred scripture – which is against his conscience. One of the arguments contra is that there is neither a maximum act of studying which would conform to the prelate’s precept nor a minimum act of studying which would not so conform, since the intensity of the act of studying may be increased in infinitum.⁶⁴³

Holcot goes on immediately to give the example of being commanded to study sacred Scripture, and his argument contra also revolves around maxima and minima. In a broadly

⁶⁴¹ See Baker, ‘Gödel in *Gawain*’, pp. 357-359; and Arthur, *Medieval Sign Theory*, pp. 34-36.

⁶⁴² Holcot, ‘*Determinationes*’, sign. D – K vi (sign. D^{ra}).

⁶⁴³ Wilson, *Heytesbury*, p. 101.

similar way, the *Gawain*-poet seems to be interested in finding a scenario which demands the very maximum conceivable level of ‘trawþe’ and equally concerned with finding the minimum conceivable action that Gawain can take in order to breach the agreement. Gawain is asked to maintain an almost infinite ‘trawþe’, in a scenario that pushes the very limits of literary, logical and legal plausibility. He fails (at least in his own eyes) because he breaks an agreement of hospitality with Sir Bertilak only in what is arguably the least possible way that his courtesy to the lady will allow, rejecting her sexual advances, and her ring, instead accepting only a mere token, a ‘symple’ piece of her clothing, and that under an immense and quite understandable desire for self-preservation (1770-1847).

The Man Who Wasn't There

Other ‘contract’ or ‘promise’ *sophismata* were designed to test questions to do with reference, and specifically nominalist supposition theory. I discussed some of these *sophismata* in Chapter 1, including another widespread example in which a dishonest debtor who has promised to give someone a penny wriggles out of his debt by asking which particular penny in the world he must give. Since, for any particular penny in existence, he is not specifically obliged to give *that* particular penny in order to fulfil his debt (and this is true for all pennies in existence), therefore, it is argued, he is not actually obliged to give a penny at all. This sophism does bear certain similarities to Holcot’s ‘minimum study’ sophism: Holcot asks exactly how much study he must do, and works down to an infinitesimal amount. Ockham, the originator of the ‘Penny’ sophism, asks which of all the pennies in the world he must give, and works down to no particular penny at all. There is a similar interest in limits at play in the two examples. However, the focus of Ockham’s sophism is his nominalist understanding of supposition: the debtor cannot owe some universal abstract ‘penny’ because no such universal exists, as it might for a realist. Therefore he must owe a material, ‘real-life’ penny, and he seems entitled to ask which specific penny it is that he owes.

Reference to Ockham's penny is problematic because the debtor seems to have no particular coin in mind when he promises to pay a penny. His 'penny-debt' is a sort of fiction, constructed out of an amalgamation of all the real pennies in existence. Buridan chooses not a penny, but a horse, when he discusses the same basic problem.⁶⁴⁴ One possible reason that he does so is that his discussion of the sophism thus ties in more neatly with his discussion of another of the most widespread *sophismata* of the fourteenth century: 'A chimera exists'.⁶⁴⁵ The horse that Buridan's debtor owes is, to speak loosely, a 'fictive' animal somehow constructed out of all the real horses in existence, as opposed to a real universal of a 'horse'. A chimera is similarly a creature constructed out of a whole range of other creatures. A chimera is also undoubtedly 'fictive': for a nominalist like Buridan, the word 'chimera' in a logical proposition cannot possibly 'supposit' for (or stand for) a chimera, because there are no real chimeras. In fact, as I discussed earlier, Buridan is forced to cut up the chimera into its constituent parts (a lion's head, a goat's body and so on) and let those supposit for real animal body parts instead.

This helps explain another way in which the *Gawain*-poet pushes the beheading contract to a logical extreme. Fourteenth-century *sophismata* explored the problematics of keeping promises which involved terms with no specific material reference. Gawain has to keep just such a promise: he must be beheaded by a fictive man. I have discussed above how the *Gawain*-poet foregrounds the possibility that the whole beheading sequence is an embedded fiction, supplying Arthur's desire for a strange story. The Green Knight is also, in broader terms, rather like a chimera: he is, as Dorothy Yamamoto explores, part man, part Wodewose.⁶⁴⁶ He is, in fact, a huge, swaggering example of the proposition, used almost *ad nauseam* in building sophistic syllogisms, that 'A man is an animal'.⁶⁴⁷ He resembles

⁶⁴⁴ Buridan, *Sophisms*, p. 137 (Chapter 4, Sophism 15).

⁶⁴⁵ Buridan, *Sophisms*, p. 67 (Chapter 1, Discussion of Sophism 4).

⁶⁴⁶ Yamamoto, *Boundaries*, p. 173.

⁶⁴⁷ See, for example, Buridan, *Sophisms*, p. 159 (Chapter 6, Conclusion to Sophism 1).

Buridan's chimera even more when, thanks to Gawain's deft handling of an axe, he is cut into distinct pieces, and yet continues to function as a single entity (444-47). The Green Knight's literary features thus draw attention both to the logical problems that fiction causes, and to the extremity of the conditions in which the *Gawain*-poet is testing the principle of 'trawþe'.

Finally, the devilish connotations that the *Gawain*-poet gives the Green Knight (2192-93) enable him to be seen in the light of another common sophismatic symbol of problems of reference: the Antichrist. Certainly the Green Knight fits the biblical description of this devilish figure, who is himself represented in Revelation as both a chimera and a creature who survives a mortal head injury:

bestiam quam vidi similis erat pardo et pedes eius sicut ursi et os eius sicut os leonis [...] et unum de capitibus suis quasi occisum in mortem et plaga mortis eius curata est. (Revelation 13:2-3)

(The beast, which I saw, was like to a leopard, and his feet were as the feet of a bear, and his mouth as the mouth of a lion. [...] And I saw one of his heads as it were slain to death: and his death's wound was healed.)

As I have discussed before, the Antichrist serves in late-medieval logic as an example of epistemologically certain propositions about an as-yet contingent future, in the context of the wider debate about God's foreknowledge and determinism. Holcot is one of the many logicians who use the term in this way.⁶⁴⁸ The Antichrist was also used as an example by which to discuss nominalist reference to things that do not exist at the moment, as Buridan does in his discussion of the sophism 'Non-being is known'.⁶⁴⁹ In this sense, the function of the term 'Antichrist' is very similar to that of the term 'chimera'. Buridan also discusses the proposition 'A chimera is non-being' and Holcot actually considers the proposition 'Antichristus non est chimaera'.⁶⁵⁰

⁶⁴⁸ For instance, 'Antichristus est futurum contingens': in Holcot, *Seeing the Future*, p.61 (Quodlibet III, Quaestio 1, A1: 'Utrum clare videns Deum videat omnia futura contingentia' ('Whether, seeing clearly, God sees every contingent future event')).

⁶⁴⁹ Buridan, *Sophisms*, p. 152 (Chapter 5, Sophism 7).

⁶⁵⁰ Holcot, *Seeing the Future*, p. 70 (Quodlibet III, Quaestio 1, A3).

The apocalyptic aspect of *Sir Gawain* has been noticed by other critics, as has the *Gawain*-poet's broader interest in questions to do with soteriology, although without discussion of the logical debate over future contingency with which such questions were inextricably bound up.⁶⁵¹ Importantly, although the chimera and the Antichrist both served as examples of the problemata of nominalist supposition-theory, they tended to function in slightly different ways. The chimera was used to illustrate problems caused by fiction, as I have discussed. The Antichrist was used in relation to problems of tense and time: as a future figure, he illustrated the problems of referring to things not yet in existence (but which certainly will be). Logical discussions of such problems of tense often resulted in sophisms that seemed to refer to the resurrection of the dead, such as 'The corrupt is to be generated', deepening the presence of eschatological imagery in the *sophismata*.⁶⁵²

There was a similar problem in how to refer to things that were once in existence and no longer are: two common examples used to exemplify that question were 'Caesar' and 'Aristotle'.⁶⁵³ Buridan enjoys referring to 'Aristotle's horse' instead, using this single example more than ten times in his *Sophismata*. The problem he is confronting is for what the term 'Aristotle's horse' can possibly supposit (or stand), since 'Aristotle's horse is dead' and therefore 'Aristotle's horse does not exist'.⁶⁵⁴ Buridan also makes use of the suggestive sophism 'Omnis homo fuit in arca Noe' ('Every man was in Noah's Ark'), which he argues on the grounds that at one point in time every man alive *was* in the ark ('quia sequeretur quod omnis qui fuit homo fuit in arca Noe').⁶⁵⁵ This example once again links logical problems of tense with the general idea of covenants, and specifically a covenant that features

⁶⁵¹ See Clark and Wasserman, 'Passing of the Seasons', pp. 5-22. Clark and Wasserman read the poem as bearing an interest in soteriological questions, which I will approach in relation to *Pearl* and *Patience* below from a slightly different angle. See also O' Mara, 'Holcot's "Ecumenism"' and 'Holcot and the "Pearl"-Poet'. I return to O' Mara's reading in more detail below.

⁶⁵² Buridan, *Sophisms*, p. 149 (Chapter 5, Sophism 5).

⁶⁵³ For example, see Buridan, *Sophisms*, p. 89 (Chapter 2, Conclusion to Sophism 7): 'Aristotle was to be generated'; see Holcot, *Seeing the Future*, p. 64 (Quodlibet III, Q1, A3): 'Caesar fuit imperator' ('Caesar was Emperor').

⁶⁵⁴ See Buridan, *Sophisms*, pp. 83-84 (Chapter 2, Sophisms 1-2).

⁶⁵⁵ John Buridan, *Tractatus de consequentiis*, 1. 8. 62.

prominently in *Cleanness*.⁶⁵⁶ The agreement with the Green Knight addresses this specific problem too: Gawain must keep his bargain not merely with a fictive man, or with an ‘antichrist’, but emphatically with a dead man, or a resurrected man.

⁶⁵⁶ *Cleanness*, in *Poems of the Pearl Manuscript*, lines 294-496. All further reference to *Cleanness* will be included in the text.

Pearl

The Hidden Gem

Like *Sir Gawain*, *Pearl* seems to incorporate sophismatic imagery. Just as the knot was a recurrent metaphor for the nature of a sophism, so too the gem, and specifically the pearl, was an image both used as a term *in the sophismata* and used by logicians as a metaphor for the nature of a sophism. Thus, in one mid-thirteenth-century treatise on insolubles sometimes attributed to William of Sherwood (probably wrongly), the author explains how the term ‘insoluble’ itself is ambiguous:

Circa tractatum de insolubilibus, primo sciendum quod hoc nomen *insolubile* dicitur tripliciter: uno scilicet modo, quod nullo modo potest solvi; alio modo, quod bene potest solvi quantum est de se, propter tamen aliqod impedimentum nunquam solvitur; tertio modo, quod propter sui difficultatem difficile solvitur. Ad similitudinem primi, dicitur ‘vox invisibilis’; *ad similitudinem secundi, dicitur ‘lapis absconditus in terra invisibilis’*; ad similitudinem tertii, dicitur ‘sol invisibilis’. Ultimo autem modo intendimus nunc de insolubili.⁶⁵⁷

(Concerning the tract on insolubles, one has to know first that the noun ‘insoluble’ is used in three senses. In one sense it means that which can in no way be solved. In another sense it means that which can very well be solved as far as it itself is concerned, and yet because of some obstacle is never solved in fact. In a third sense it means that which because of its difficulty is hard to solve. After an analogy to the first sense, the voice is called invisible. *After an analogy to the second sense, a stone [lapis] hidden in the ground is called invisible.* After an analogy to the third sense, the sun is called invisible. It is in this last sense that we intend to speak about insolubles now.)⁶⁵⁸

As Spade himself has pointed out, the first hint that the logical problems called *insolubilia* might actually *be* insoluble comes only with Heytesbury, and then it is only implicit.⁶⁵⁹ For the majority of late-medieval logicians, an insoluble was a problem they expected to be able

⁶⁵⁷ ‘Insolubilia Guillelmi Shyreswood’, p. 248 (fol. 46^v): my emphasis.

⁶⁵⁸ Translation taken from ‘Introduction’, in Heytesbury, *On ‘Insoluble’ Sentences*, p. 7: my emphasis.

⁶⁵⁹ Heytesbury, *On ‘Insoluble’ Sentences*, p. 58 (7th): ‘Therefore, let these things said about insolubles serve for the introduction and drill of the young, so that when it is seen that insolubles, as their name implies, cannot be solved without evident objection, everyone may quickly go beyond them to a more useful study, pursuing it the more diligently.’

to solve, and in many cases claimed they had in fact solved. There were, however, problems that, although few doubted they could be solved, never had been, in spite of centuries of effort. Rather inconsistently, Heytesbury himself, earlier in his chapter on insolubles, gives us one such example, comparing insolubles to the squaring of the circle, which Aristotle claimed to be knowable but not yet known.⁶⁶⁰ Our anonymous logician's analogy of a gem buried in the earth seems to gesture towards one of these solvable but unsolved problems: one could find the gem, but no one has yet dug in the right place.

Another unknown logician of the mid-thirteenth century uses the gem as an image within a sophism, and this time he chooses a specific stone: a pearl. He formulates the following syllogism:

Nullus homo est lapis.
Omnis margarita est homo.
Ergo nulla margarita est lapis.⁶⁶¹

(No human being is a gem.
Every Pearl is a human being.
Therefore no pearl is a gem.)

The trick here is simple but profound: 'Pearl' can be a proper noun, signifying all human beings with the name 'Pearl'; or, of course, it can refer to the gem-stone, signifying all (or some) gems commonly called pearls. By applying the first of these meanings to the second premise, the syllogism seems valid; by applying the second of these meanings to the conclusion, the apparently valid syllogism seems to produce an obviously false conclusion. Thus far the problem is merely an *impossibilium*: we know that pearls are gems and so we must reject the syllogism. Our anonymous logician, however, immediately presses the argument further, in order to produce an internal contradiction:

⁶⁶⁰ Heytesbury, *On 'Insoluble' Sentences*, p. 58 (7th). See also Spade, 'Heytesbury's Position on "Insolubles"', p. 116. Holcot makes a similar point about unsolved problems, using the same example of squaring the circle. See Smalley, *English Friars*, pp. 329-330; citing *Lectio XV* of the *Wisdom Commentary*: Oxford, Balliol College MS 27, fol. 26^{va}.

⁶⁶¹ Taken from *Summa totius Logicae Aristotelis*. Uckelman refers to the author as 'Pseudo-Aquinas'; and states that 'it is clear from [the] content that they date from the same period as Sherwood's *Introductiones* or slightly later' [i.e. mid-thirteenth century]: Uckelman, 'Three 13th-century views', p. 390.

Sed quaedam margarita est lapis.
Ergo quaedam margarita non est homo.

(But some pearl is a gem.
Therefore some Pearl is not a human being.)

What we all know is now introduced as a formal proposition: some pearls are gems; therefore some pearls are not people. The internal contradiction takes this problem beyond a simple *impossibilium*, to become a more difficult sophism based on the ambiguity and arbitrariness of language, especially proper nouns.

A great many fourteenth-century *sophismata* were generated in a similar way. Buridan, for instance, discusses, in the context of a nominalist theory of supposition, the proposition that ‘Man is a species’⁶⁶². The problem is that the term ‘man’ cannot, for Buridan, refer to some universal abstract. So, does it refer to a specific man? But no man is himself a whole species. Or does it refer to the word ‘man’? But no word is a species either, and so on. The ‘human-being-as-gem’ trope also remains current in fourteenth-century logic. Buridan is one writer who uses it recurrently throughout his work, and although it must be conceded that ‘lapis’ can also simply mean ‘stone’ (and Buridan does clearly use it to mean a heavy rock in places), his description of the term ‘lapis’ in relation to the ‘lapis-as-human’ trope in his *Quaestiones in Aristotelis Physica* seems to suggest that, at least in some instances, he may have been thinking of pearls in particular: ‘illi lapides sint albi secundum aequalem gradum intentionis [...] et ambo sphaerici’ (‘let these stones be equally white [...] and both spherical’).⁶⁶³ Again, the wider issue that Buridan is discussing here is the *singularity* of nominalist supposition, as opposed to a realist doctrine of universals: the gems are identical, and you are presented with one today, and the other tomorrow, and cannot tell the difference between them. Thus the ‘pearl’ also functions as an example in fourteenth-century logic of the sorts of problematic reference that I have just examined in relation to *Sir Gawain*.

⁶⁶² Buridan, *Sophisms*, p. 98 (Chapter 3, Sophism 3).

⁶⁶³ Buridan, *Quaestiones in Aristotelis Physica*. Buridan uses the image of the gems just before invoking the examples, ‘Socrates est albus’ and ‘nullus lapis est Socrates’.

In his treatment of the central, eponymous image of *Pearl*, the *Gawain*-poet plays up all of these logical connotations. The poem begins by supplying, in its very first word, the term whose meaning is ambiguous: ‘Perle’. By the end of the first four lines, the poet has provided several different ways in which that term can be taken to *refer* or *supposit*:

Perle plesaunte, to prynces paye
To clanly clos in golde so clere,
Oute of oryent, I hardyly saye,
Ne proued I neuer her precios pere.⁶⁶⁴

The opening lines are perhaps most easily read as describing the nature of pearls in general, as W. H. Schofield argued over a century ago.⁶⁶⁵ Schofield compares the opening of *Pearl* to a passage in *Cleanness*:⁶⁶⁶

Perle praysed is prys þer perré is schewed,
þaz hyt not derrest be demed to dele for penies.
Quat may þe cause be called bot for hir clene hews,
þat wynnes worschyp abof alle whyte stones?
For ho schynes so schyr þat is of schap rounde,
Wythouten faut oþer fylþe 3if ho fyn were,
And wax euer in þe worlde in weryng so olde,
3et the perle payres not whyle ho in pryse lasttes. (1117-24)

The similarity of the first line of each passage makes a comparison between the two inevitable. In *Cleanness*, although the pearl is an image of something else (salvation and its related purity – both ideas explored using the image in *Pearl* too), there is no doubt that the gem, rather than a girl, is being referred to. Pearls here are ‘clene’, ‘rounde’ ‘whyte stones’, a basic material description rather like that of Buridan quoted above. Schofield also compares the opening lines of *Pearl* with the descriptions of gems found in medieval lapidaries.⁶⁶⁷ The first word of *Pearl*, therefore, can be read as referring to pearls in general, in what fourteenth-century logicians would call ‘confused common personal supposition’.⁶⁶⁸ According to

⁶⁶⁴ *Pearl*, 1-4. All quotations are taken from *Pearl*, ed. by E. V. Gordon. Further line references will be incorporated into the text.

⁶⁶⁵ Schofield, ‘Symbolism’, pp. 593-94.

⁶⁶⁶ Schofield, ‘Symbolism’, p. 598.

⁶⁶⁷ Schofield, ‘Symbolism’, pp. 599-607.

⁶⁶⁸ Explanations of all four kinds of supposition that I apply to this passage can be found in Spade, ‘Late Medieval Logic’, pp. 412-14.

Schofield it is not until line 9 that it becomes clear that the narrator is referring to anything other than the idea of a pearl in general. In my opinion, the shift towards specific reference comes somewhat earlier, first when the sort of pearl being described is specified in line 3 ('oute of oryent') and even more clearly when its singularity is emphasised in line 8 ('I sette hyr sengely in synglure'). This allows a second possibility of reading the first word of the poem as referring to 'some pearl', in what fourteenth-century logicians would call 'determinate common personal supposition'.

The first word of the poem can also be read as referring by means of 'discrete personal supposition': that is, 'Pearl' could be a proper noun, the name of a particular person or thing. The clearest indication of the possibility of such a reading is the poet's use of the possessive pronoun, 'her'. Schofield was undoubtedly correct to point out that, as a feminine object, the description of a pearl with the feminine pronoun is by no means grammatically impossible.⁶⁶⁹ Nevertheless, the poet's variation between the feminine and the neuter pronoun (for example, 'hit' in line 13) seems designed to draw attention to the duality of his reference to both stone and human being. It is by confusing 'discrete personal supposition' and 'common personal supposition' that the thirteenth-century sophism referred to above works.

Finally, it is possible to understand the first word of *Pearl* as referring to the actual word 'perle' itself, in what fourteenth-century logicians would call 'material supposition'. I have discussed how, in *Sir Gawain*, the poet draws attention to his alliterative style as symbolic of the text's sophistic 'knottiness'. In *Pearl*, the poet arguably adopts an even 'knottier' style, supplementing his use of alliteration with an interwoven rhyme scheme and the concatenation that ties each stanza together. It is possible to read the first line of the poem as, in a secondary sense, an advertisement of this style, just as the passages cited from *Sir Gawain* advertise it there. The word 'perle' is 'plesaunte to', that is 'alliterates with', the two-

⁶⁶⁹ Schofield, 'Symbolism', pp. 594-95.

word phrase ‘prynces paye’. Thus in the very first line of the poem the poet links the image of pearl-as-sophism to the image of knot-as-sophism in *Sir Gawain*, manifested through the ‘knotty’ alliterative style of both poems and additionally through the concatenation and rhyme scheme of *Pearl*.

The *Gawain*-poet’s ‘pearl’ may therefore be read as a symbol of how different forms of reference introduce logical problems into human speech and thought patterns. In that sense, it plays a similar role to the quasi-semantic belch (‘buf!’) in the Summoner’s Tale.⁶⁷⁰ The ‘pearl’ in the opening stanzas of the poem is also emphatically lost or hidden in the ‘grounde’ (10), just like the gem that served as a symbol of the *insolubilia* in the thirteenth-century treatise quoted above. The use of the ‘buried gem’ motif suggests that *Pearl* is a ‘problem poem’, which will demand, of its reader as much as of its protagonist, the ability to think clearly to solve the puzzle. In addition, the emphasis on the ‘singularity’ of the Pearl suggests a more mathematical interest to do with indivisibilism, which I will discuss below. More importantly, however, the opening ‘sophism’ of *Pearl* sets the scene for a broader and more powerful evocation of the problem of linguistic reference as a metaphor for the difficulties of emotional and spiritual reference in the rest of the poem. Under this aspect, the emphasis on the ‘singularity’ of the pearl highlights the central problem of the poem.⁶⁷¹ Under a nominalist theory of supposition, ‘pearl’ must stand for someone or something *really there* – except it (or she) is not *really there*, not anymore. The pearl is lost; Pearl is dead. The *Gawain*-poet uses logical problems to do with supposition to communicate the bewildering sense of loss and grief that the ‘jeweller’ is faced with.

⁶⁷⁰ See Chapter 1.

⁶⁷¹ The importance of ‘singularity’ in *Pearl* has of course been explored from other perspectives. See, for instance, Watkins, “‘Sengeley in Synglere’”.

Getting a Grip

From one point of view, almost all the logico-linguistic problems of late-medieval thought were in some way concerned with ‘getting a grip’ on the non-tangible elements of human experience. This is essentially the motivation at the heart of the realist-nominalist debate: how can one refer to the idea of ‘Man’ generally without either meaning a particular man or men one has met or some super-physical realist ‘form’ that somehow encapsulates the essential qualities of being man? Similarly, the desire to ‘get a grip’ on (that is, to be able to make clear and specific reference to) problematic entities is the source of many, if not most, of the fourteenth-century *sophismata*. I have discussed, in relation to *Sir Gawain*, examples of reference to past and future entities, such as Aristotle’s dead horse, the Antichrist and the resurrected dead. As I have emphasised throughout this thesis, such *sophismata* form part of the wider context of the debate over future contingency and, more specifically, a predestinatory soteriology. In *Pearl*, the *Gawain*-poet’s concerns with death, eschatology and soteriology is, of course, even clearer than in *Sir Gawain*.

Perhaps the most striking and beautiful image of death used in the whole poem is the metaphor of the dead rose with which the Maiden attempts to console the Jeweller:

For þat þou lesteþ watz bot a rose
þat flowred and fayled as kynde hyt gef.
Now þurþ kynde of þe kyste þat hyt con close
To a perle of prys hit is put in pref. (269-72)

The image gains its potency in this passage, as others have noticed, from its conflation of the courtly and religious connotations of the rose: the symbol of mutable worldly beauty here, becomes later (906) the *rosa caritatis*, the symbol of divine love.⁶⁷² However, it seems that the *Gawain*-poet saw in the dead rose a powerful image of the death of a child, for it is in relation to the pain and dangers of labour that he uses the same metaphor in *Cleanness*, describing the peace and safety of the nativity:

⁶⁷² *Poems of the Pearl Manuscript*, p. 67 (note).

For þer watz seknesse al sounde þat sarrest is halden,
And þer watz rose refluayr where rote hatz ben euer[.] (1078-79)

Here too the image of the rose is associated, by implication, with decay and death. The rose was a widespread trope in the *sophismata*, used specifically to discuss the problematics of supposition theory. Thus Holcot, for example, discusses whether, if no rose existed ('nulla rosa existente'), one should concede the propositions 'A rose is conceived of' ('rosa concipitur') and 'A rose is understood' ('rosa intelligitur'). In his discussion, he compares it both to the problem of referring to a 'chimera' (a fictive referent) and to the problem of referring to past and future referents: 'such propositions as "Antichrist is understood" [or] "Caesar is conceived of"' ('tales propositiones "Antichristus intelligitur," "Caesar concipitur"').⁶⁷³ Buridan's use of the term is even closer to the *Gawain*-poet's. In one passage of his *Questiones longe super Librum Perihermeneias*, he discusses how one can refer to last year's roses, which are now gone.⁶⁷⁴ The term 'rose' occurs 17 times in Buridan's *Consequentia*, and on every single occasion it is a conceptual rose, usually because it no longer exists or does not yet exist. On one occasion it is specifically used in the context of problematic terms of change, including 'corrumpitur'.⁶⁷⁵ The logical rose is usually a 'fayled' rose, a rose of 'rote'.

The rose is thus a common logical symbol of the problems of reference created by death and decay, as well as by futurity. It serves perfectly to communicate the inability of the 'Jeweller' to get a mental grip on what he has lost, and she refers to his state of mind as 'mad', obsessed with a 'rayson bref' – a 'transitory cause', as Andrew and Waldron gloss it (267-68).⁶⁷⁶ He does not realise, as the Maiden tries to explain in lines 271-272, that the rose has been transfigured into a symbol of immutability and stability. As the passage from

⁶⁷³ Holcot, *Seeing the Future*, pp. 65-66 (note); quoting Holcot, *In Sententias*, 2. 2. 3.

⁶⁷⁴ See Klima, 'Quine, Wyman, and Buridan', p. 8; citing *Johannes Buridanus: Questiones Longe super Librum Perihermeneias*, ed. by Ria van der Lecq (Utrecht: Krips, 1983), pp. 12-14.

⁶⁷⁵ Buridan, *Tractatus de consequentiis*, 1. 8. 82.

⁶⁷⁶ *Poems of the Pearl Manuscript*, p. 67 (note).

Cleanness quoted above makes clear, a pearl is something that ‘lasttes’ (1124). It is also, as the sophistic heritage of the image suggests, the solution to a problem buried in the ground, the problem, perhaps, of getting a grip on a mutable world, this side of the grave.

One more aspect of the pearl and rose imagery is significant. Buridan discusses a conceptual ‘rose’ involving the proposition ‘rosae sunt tibi promissae’ (‘roses were promised to you’).⁶⁷⁷ This is another example of the ‘promise’ or ‘contract’ *sophismata* which I discussed in relation to *Sir Gawain* above. The rose, as a gift, can also function as a symbol of the logical problematics of covenants. The *Gawain*-poet, in his description of the pearl in *Cleanness*, also relates it to a context of commercial exchange: ‘hyt not derrest be demed to dele for penies’ (1118). This line perhaps evokes the *sophismata* of promise and reward, which usually do deal in pennies (as I observed above) and with them it evokes the problems associated with the mathematics of merit that I discussed above. As part of its discussion of earning heavenly reward, *Pearl* explicitly addresses this concern too, and thus at the same time introduces problems of mutual action in which God himself is one of the participants.

Measuring Merit

In his debate with the Maiden, the ‘Jeweller’ protests about the paradoxical understanding of heavenly reward implied by Matthew’s parable of the labourers in the vineyard, who are paid the same amount regardless of how long they have worked. To be precise, in the parable they are each paid a ‘pene’ (510), or, in the Biblical Latin, a denarius (Matthew 20:1), just as in so many of the promise *sophismata*; and the Maiden quite conventionally interprets the penny in terms of heavenly reward (614). The ‘Jeweller’ emphasises the logical problem that arises from the extension of the principle: ‘Penne þe lasse in werke to take more able, / And euer þe lenger þe lasse, þe more’ (599-600). The crucial phrase here is ‘euer þe lenger’, which could

⁶⁷⁷ Buridan, *Tractatus de consequentiis*, 1. 6. 16.

be taken to transform a protest about the fairness of heavenly reward into a sophism about the intension and remission of forms discussed by the Oxford Calculators. E. V. Gordon glosses the lines as ‘the less work done, the greater the capacity for earning, and so continually in a constant (inverse) ratio’.⁶⁷⁸ in other words, if everyone is rewarded equally, then the fewer meritorious acts one performed, the more each of those acts merited proportionally. That is the paradox the Jeweller objects to, not merely on account of its injustice, but also because of its ultimate absurdity.

Carleton Brown has also read this passage in terms of fourteenth-century theological approaches to the idea of proportionality, concluding that the *Gawain*-poet takes an even more thoroughly anti-Pelagian soteriological position than Bradwardine.⁶⁷⁹ He sees a possible pun in the use of the word ‘pretermynable’ (595), referring to God’s character as a judge of each according to ‘hys desserte’ (594). The word, he argues, may be equated with the scholastic term ‘predeterminatio’, thus demonstrating the poet’s interaction with the theological disputes over predestination.⁶⁸⁰ The MED, however, gives no account of this precise term, defining ‘terminable’ as ‘susceptible of a final disposition, resolvable’, citing the early fifteenth-century *Rolls of Parliament*.⁶⁸¹ Furthermore, ‘pretermynable’ is, in fact, a critical emendation of the manuscript’s ‘pertermynable’, which suggests that the central concern here is more with the finality or finitude implied in the stem of the word (-‘termyn’-), than with any suggestion of predestination adduced from the emended prefix.⁶⁸² I would like to suggest that the word carries connotations which, without being directly incompatible with Carleton Brown’s reading, may make more sense of the text as it is actually written.

⁶⁷⁸ *Pearl*, p. 66.

⁶⁷⁹ Carleton Brown, ‘The Author of The Pearl’, pp. 133-36.

⁶⁸⁰ Carleton Brown, ‘The Author of The Pearl’, p. 133. As an example, he cites Aquinas, *Summa Theologica*, Pars I, Q. XXIII, Art. 1.

⁶⁸¹ MED, ‘terminable’, a.

⁶⁸² As noted by Gordon (*Pearl*, p. 22). Andrew and Waldron leave the word unemended (*Pearl*, in *Poems of the Pearl Manuscript*, p. 81). The MED’s definition of ‘perterminable’ (‘having power to determine all things; ?determining beforehand, preordaining’) is based solely on this passage and cites no other occurrences of the word. See MED, ‘perterminable’.

It is interesting that this highly unusual, Latinate term should find itself in such a close proximity to the logical paradox described above, since it is at the *terminus*, or limit, of this inverse correlation between work and reward that one encounters exactly the sort of psychological problem that formed a substantial part of the interests of the Oxford Calculators. It seems to follow that in the case of one who does an infinitesimally small amount of work, that infinitesimal amount of meritorious action hypothetically merits infinitely, since it produces a non-infinitesimal, finite reward. I discussed in Chapter 3 above one example from Richard Swineshead in relation to the intension of heat that exemplifies the problem clearly, and for the sake of convenience, I will repeat it here:

[imagine] a given subject [...] hot in degree 1 over its first half, in degree 2 over its next quarter, in degree 3 over its next eighth, in degree 4 over its next sixteenth, and so on in infinitum. As a whole, the subject is hot in degree 2. That is, it is finitely hot as a whole even though the heat throughout it increases infinitely.⁶⁸³

In Swineshead's example, the intensity of the heat in the subject increases even as the extension of the segment in question decreases, terminating in a segment infinitely hot but infinitesimal in extension, just like the 'intensity' of merit in question in *Pearl*. That is why the 'Jeweller' is perplexed at finding the Maiden to have received so great a reward: her situation is the *terminal* or limit case of a mathematically problematic ratio. Here in *Pearl*, as in *Sir Gawain*, there is an interest in whether the usual principles of merit work in extreme cases.

A striking example of a similar problem is again found in Holcot:

In his 'Sentences' commentary of 1331–3, the English Dominican Robert Holcot raised a difficulty based, like Gregory's divine supertask, on the proportional parts of an hour. Holcot did not specify a proportion, but let us take it to be a half. Now suppose that a man is meritorious over the space of half an hour, sinful over the next fifteen minutes, meritorious over the next seven and a half minutes, and so on, and suppose that he dies at the end of the hour. Then God cannot reward or punish him, because there was no final instant of his life

⁶⁸³ Murdoch, 'Infinity and Continuity', pp. 588-89.

that would determine whether he died a bad man or a good man. Holcot followed this up with eight similar arguments based on the continuum.⁶⁸⁴

Holcot's 'casus' is another example of the rigorous application of problems from the *sophismata physicalia* to moral and theological questions that I explored in Chapter 3.⁶⁸⁵ The interest in infinitesimal moments of 'merit' in Holcot's example finds a neat parallel in the Jeweller's argument in *Pearl*. Furthermore, it is clear that if Holcot had to be assigned a voice in the poem, it would be that of the Jeweller, not that of the Maiden.

The Maiden's response to the problem is verbally and philosophically suggestive: 'Of more and lasse in Godde3 ryche, / [...] lys no joparde', she asserts (601-602). Margaret Williams translates 'joparde' as 'unfair play' here, apparently reading 'joparde' as 'trick'; or perhaps she draws the connotations of play from the use of the term in chess and the Pearl Maiden's use of 'mate' (that is, checkmate) a few lines later (613).⁶⁸⁶ Probably the Gawain-poet's mind followed a similar train of association. Yet another plausible reading of 'joparde' in its immediate context is simply 'contradiction', or perhaps 'puzzle': 'there is nothing,' says the Pearl Maiden, 'to be *perplexed* about' – 'there is,' if you like, 'no *paradox* here'. Such a usage of the term perhaps sheds light back upon Arthur's desire to watch two men jousting in 'jopardé' (*Sir Gawain*, 97). Either reading is fertile. The *Gawain*-poet is interested in how agreements between God and man can create puzzles, sophistic paradoxes of the kind that fourteenth-century logicians were discussing in relation to the problem of future contingency. However, the Maiden also possibly feels the need to defend God from the charge of trickery in his soteriological dealings with man, and that reading of the passage links it to the radical

⁶⁸⁴ Thakkar, 'Mathematics', p. 624.

⁶⁸⁵ More specifically, William J. Courtenay provides a brief discussion of the application by fourteenth-century theologians of logical problems concerned with maxima and minima to theological problems about the increase of grace, including whether a perfect measure of grace is attainable before death: *Schools and Scholars*, pp. 289-92.

⁶⁸⁶ *The Pearl Poet: His Complete Works*, p. 286.

understanding of God's foreknowledge urged by Holcot and others. These concerns stand equally at the heart of another of the *Gawain*-poet's works, *Patience*.

Patience

A Problematic Prophecy

Sir Gawain and Pearl are both concerned with human merit, and both feature conceits that seem to resonate with fourteenth-century *sophismata* of mutual action. As I discussed above, one of the proposed solutions to the famous ‘Bridge’ problem involved the idea that Plato lied in making his original ultimatum, since his statement about a future contingent was, in fact, not true. I have also discussed in Chapter 1 how Holcot complicated the problem theologically by putting God in the place of Plato, making revelations about future contingents that need not, and in fact sometimes do not, come true. *Patience*, like the other three poems, is interested in problematic promises or covenants, and here fourteenth-century concerns over future contingency and divine foreknowledge are perhaps most clearly invoked.

Bradwardine, responding to arguments ‘contra immutabilitatem diuinæ voluntatis’ (‘against the immutability of the divine will’), discusses the problem of divine revelations that do not seem to be fulfilled.⁶⁸⁷ The example he chooses is striking:

Multæ quoque tales prophetiæ comminatoriè multa prædicunt, nec eueniunt; non enim hec prædicunt vt eueniant: vnde Ieronymus in Glossa auctoritatis Ezechielis 33. allegatae: Non statim sequitur, vt quia Propheta dicit, eueniat quod prædicit; Non enim prædicit vt veniat, sed minatur ne veniat. Nec quia Deus loquitur, necesse est fieri quod minatur, sed vt pœniteat cui minatur, et non fiat quod futurum est, si verba Dei contemnantur; ita quòd in talibus prophetijs videtur semper intellegi conditio quædam talis, nisi pœnitueritis de peccatis. Vnde et in prologo Glosse super Psalterium, ponitur duplex prophetia, scilicet secundum prædestinationem, quam necesse est semper impleri secundum tenorem verborum; et secundum comminationem, vt 40. dies sunt et Niniue subuertetur, quæ non semper impletur secundum verborum superficiem, sed secundum tacitæ intelligentiæ significationem; [...] etiam vult Augustinus super illud Psalmi 50. Incerta et occulta sapientiæ tuæ manifestati mihi, dicens; *Sub hoc merito Niniuitæ pœnituerunt, et certam misericordiam meruerunt.*

⁶⁸⁷ Bradwardine, *De causa Dei*, p. 245.

Stetit ergo Niniue, et non est euersa. Ego autem puto impletum esse, quod Propheta dixit; Respice quæ fuit Niniue, et vide quia euersa est in malo, et ædificata in bono[.]

(Also many such prophets foretell many things as a warning that do not come to pass; for they do not foretell [things] in order that they should come about: hence Jerome wrote in the authoritative Gloss of Ezekiel 33: ‘it does not immediately follow, that because a prophet speaks, that what he speaks should come to pass; for he does not foretell in order that it may come to pass, but to warn lest it should come to pass. Nor because God speaks, is it necessary that what he warns should happen, but [it is] in order that he whom he warns should repent, and that it should not happen as it was about to happen, if they despised the words of God’; thus it seems that in such prophecies a certain condition is always to be understood, ‘unless you repent of your sins’. Whence also in the prologue to the Gloss on the Psalms [the *Glossa Ordinaria*], a double [meaning] of prophecy is proposed: namely in accordance with predestination, which is always necessarily to be fulfilled according to the sense of the words; and in accordance with a warning, such as, ‘In forty days Nineveh will be overthrown’, which is not always fulfilled in accordance with the surface [meaning] of the words, but in accordance with a signification of tacit understanding; [...] For Augustine wants [to make] this point about Psalm 50: ‘Uncertain and hidden things of your wisdom [have been] made clear to me’, saying: ‘on this basis [i.e. on the basis of an uncertainty] they repented, and certain mercy they merited. Therefore Nineveh could stand, and it was not overthrown. I however consider what the Prophet said to have been fulfilled: look at what Nineveh was, and see that it was overthrown in evil and built up in good’ [i.e. ‘evil’ Nineveh was destroyed, because it became ‘good’ Nineveh’].⁶⁸⁸

It is apparent from Bradwardine’s quotations of Jerome, Augustine and the *Glossa Ordinaria* that the story of Jonah had been considered a problematic case of prophecy from the Church Fathers onwards. In the fourteenth century it becomes a battleground in the logico-theological controversy between Bradwardine and the ‘Pelagians’.

Ockham invoked Jonah’s prophecy about Nineveh as a problematic example in his *Tractatus de predestinatione*, where he proposed one of the views that Bradwardine mentions above, that such prophecies are really ‘concealed conditionals’.⁶⁸⁹ As Richard Gaskin notes, ‘this solution to the problem found almost no support among Ockham’s

⁶⁸⁸ Bradwardine, *De causa Dei*, p. 249. The emphases are mine. The quotations are Jerome, *Commentariorum in Ezechielem Prophetam Libri Quatuordecim*, col. 318, in *PL (113-114)*; Augustine, *Expositions on the Book of Psalms*, pp. 367-68.

⁶⁸⁹ Gaskin, ‘Peter of Ailly’, p. 276.

successors': Adam of Wodeham, for instance, rejected it 'on the ground that if revealing conditional propositions about the future is the best God can do, He is in no better position than you or me'.⁶⁹⁰ On the other hand, Bradwardine is apparently unhappy with this too, preferring to find a solution by which he can claim that the prophecy was indeed fulfilled, albeit figuratively, thus supporting his own emphasis upon predestination. Holcot's own position I have discussed above: in some sense, God is capable of deceiving, and indeed has deceived, those to whom he makes revelations about the contingent future; and through such 'deceptions', God manipulates events to his own purposes.

In *Patience*, the *Gawain*-poet chooses to emphasise Jonah's concern that God is guilty of *deceit*: first, in falsely revealing Nineveh's coming destruction; and, secondly, in His manner of overturning Jonah's choice to resist His will. In his bitter remonstrance with God at the close of the poem, Jonah chooses to characterise the divine manipulation of human affairs by collocating two alliterative words implying trickery:

A, þou Maker of man, what *maystery* þe þynkez
 þus þy freke to forfare forbi alle oþer?
 With alle *meschef* þat þou may, neuer þou me sparez[.]⁶⁹¹

The ambiguity of 'maystery' is particularly significant here: most commonly it connotes either some kind of skilful manipulation or trick, or some kind of dominance or control. Indeed it can actually denote 'necessity'.⁶⁹² Into this one word is condensed a debate over God's intervention in human action that has manifested itself more explicitly earlier in the poem.

Introducing the exemplum of Jonah, the narrator discusses the problem in logico-theological terms:

3if me be dyzt a destyné due to haue,
 What dowes me þe dedayn, oþer dispit make?
 Oþer 3if my lege lorde lyst on lyue me to bidde

⁶⁹⁰ Gaskin, 'Peter of Ailly', p. 276.

⁶⁹¹ *Patience*, in *Poems of the Pearl Manuscript*, lines 482-84. All further references will be included in the text.

⁶⁹² MED, 'maistrie', 1a, 4d, 5c.

Oþer to ryde oþer to renne to Rome in his ernde,
What grayped me þe grychchyng bot grame more seche?

[...]

Did not Jonas in Judé suche jape sumwhyle?
To sette hym to sewrté, vnsounde he hym feches. (49-58)

Here the narrator seems at first to endorse a highly deterministic view of human action in his use of the word ‘destyné’, and then perhaps to complicate the matter by subtly evoking common sophistic tropes. Rome and travelling to Rome, even specifically running to Rome (52), occur frequently in the *sophismata* collections. Buridan, for instance, uses the following proposition in his discussion of the two-stage ‘eating’ insoluble that I mentioned above in relation to *Sir Gawain*: ‘I wish to go to Rome if Socrates goes’.⁶⁹³ Here again the concern is with the kinds of impasse that can result from mutually dependent wills: if Socrates wishes only to go to Rome if Plato does not go, or even if Socrates wishes only to go to Rome if Plato does go, then stalemate is the logical outcome. This sort of sophism represents an evolution of the two-stage Liar paradox, with mutually dependent human will and action replacing mutually dependent truth-values, and thus emphasising the problem of future contingency and determinism. Heytesbury gives the example of running to Rome as part of his discussion of the sophism ‘Anima Antichristi necessario erit’ (‘the soul of the Antichrist will necessarily exist’). As I have mentioned, the coming of the Antichrist was the most conventional example of a contingent future event known by divine revelation, and hence it is a parallel of the problematic prophecy against Nineveh.⁶⁹⁴

⁶⁹³ Buridan, *Sophisms*, p. 221 (Chapter 8, Discussion of Sophism 18).

⁶⁹⁴ Heytesbury, *Sophismata* (Sophism 6, p. 29, fols 99^{rb}-104^{rb}, fol. 102^{vb}). See also van der Lecq, ‘Heytesbury on “Necessity”’, pp. 249-63, which gives brief context of the conventional ‘anima Antichristi necessario erit’ sophism from the late twelfth century onwards (pp. 249-251). He argues that in his treatment of this sophism Heytesbury means that it is contingent whether or not Antichrist will have a soul (i.e. be human) or not (i.e. be a supernatural being); although he concedes that Heytesbury’s opening sentence seems at first glance to suggest that it is contingent whether Antichrist will exist or not (p. 253). However, as James Weisheipl explains, the problem was rather wider than that: ‘the statement “the Antichrist will come” was uttered by Christ and this fact could not be otherwise. But it was still possible that the Antichrist might never come, and it could just be that he would not come.’ See ‘Ockham and the Mertonians’, p. 656. Weisheipl is referring specifically to Thomas Buckingham in his discussion, but the example (like the basic problem) was widespread.

The narrator describes Jonah's behaviour in the tale as a 'jape'. 'Jape' means, primarily, a 'trick' or 'deceit', according to the MED, but it can also connote a lying statement (especially in a religious context).⁶⁹⁵ Thus in the Summoner's Tale, Friar John applies the term to Thomas's unsatisfactory donations to his convent (III. 1961), just before Thomas tricks the Friar with his sophistic fart, which also serves as a problematic statement about the future. On the other hand, in one of the exemplars adduced by Chaucer in the Nun's Priest's Tale (an episode which Chaucer probably knew from Holcot's *Wisdom Commentary*), the sceptical traveller refuses to accept the validity of prophetic dreams, calling them 'japes' (VII. 3091).

In this passage of *Patience*, the first meaning is clearly primary: Jonah attempts to trick God by fleeing from his presence. Initially, Jonah suggests that his flight is motivated by the fear that God wants him 'slayn' (81-88). Towards the end of the poem, however, in a line that has no original in the Biblical text, Jonah admits a different reason why he resists prophesying as God commands him: 'For me were swetter to swelt as swyþe, as me þynk, / Pen lede lenger þi lore þat þus me les makez' (427-28). Preaching divine revelations, Jonah fears, makes a liar of him, when God fails to fulfil his threats. When the narrator introduces the narrative as being about Jonah's 'jape', it is therefore left open whether it is Jonah's futile attempt to trick God, or Jonah's complicity in God's own tricks and deceits.

This point is *logically* significant: Jonah breaks his 'trawþe' with God because he thinks that God himself has been, or is about to be, 'untrue'. We can read God's ultimatum to the Ninevans as a theological equivalent of Plato's ultimatum on the bridge. Buridan's solution to that *logical* problem was that Plato lied in making the ultimatum. Holcot's solution to the *theological* problem is that God somehow 'deceives' when he reveals similar propositions about a contingent future. In *Sir Gawain*, the poet seemed to hint that Gawain's

⁶⁹⁵ MED, 'Jape', 1a,b,c: the MED gives examples from a Wycliffite tract and from *Piers the Plowman's Creed* to exemplify how the term can connote religious falsity.

agreement to the beheading covenant was already not entirely in ‘god fayth’ (381). That covenant is, by the standards of fourteenth-century logic, a proposition about the contingent future: Gawain explicitly draws attention to its contingency (‘quat-so bifallez after’: 382). By accepting the agreement, he does not merely swear his ‘trawþe’ but he also swears to the ‘truth’ of the proposition. Yet at the same time he is entertaining doubts about the ‘truth’ of the agreement as a statement about the future, and thus the audience can entertain doubts about his own ‘trawþe’. In *Patience*, the *Gawain*-poet highlights the fact that the same accusation might be (indeed, *had been*) thrown at God, by theologians like Holcot. The question is whether the poet endorses that view or rebuts it.

Later on the narrator does seem to implicate God in a reflection of Jonah’s ‘jape’: ‘For þe Welder of wyt þat wot alle þynges, / þat ay wakes and waytes, at wylle hatz He slyztes’ (129-30). God’s ‘slyztes’ are more than a match for Jonah’s ‘japes’. Here again, the problem of God’s intervention in human action is condensed into a single ambiguity. ‘Slyztes’ can suggest either wisdom and skill, or cunning and deceit. The MED hedges its bets to some extent, giving this passage under the first group of meanings, but under the qualification of ‘a clever device, stratagem, plan; a technique, trick, feat’.⁶⁹⁶ The question of whether God is a cunning trickster or an all-knowing, all-controlling plan-maker is central to the poem. The narrator’s own use of ‘slyztes’ is ambiguous enough to prefigure Jonah’s accusation that God is guilty of spreading lies, whilst superficially remaining a testimony to God’s omniscient wisdom (‘wyt þat wot alle þynges’). For the narrator, God’s ‘slyztes’ are his wise plans: for Jonah, they are his cruel tricks.

In contrast to the narrator’s faith, Jonah is repeatedly shown to question God’s omniscience. He announces his intention to find ‘sum oþer waye þat He ne wayte after’ (86), a delusion that the narrator ridicules by reminding the audience that God ‘ay wakes and

⁶⁹⁶ MED, ‘Sleight’, 1d.

waytes' (130). The narrator also calls Jonah a 'wytles wrechche' (113) for limiting God's omniscience of all human action: 'Hit watz a wenyng vnwar þat welt in his mynde, / þaz he were so3t fro Samarye, þat God se3 no fyrre' (115-16). Jonah's lack of 'wyt' and his attempt to use 'japes' against God contrasts with God's own effortless and omniscient rule. Moreover, just as Jonah accuses God of spreading lies through his revelations, one of the sailors calls Jonah himself a 'losynger' (170): it is apparently Jonah who is guilty of deceit, not God.

Towards the end of the narrative, another deliberate ambiguity encapsulates the problem: 'And God þur3 His godnesse forgef as he sayde; / þaz He oþer bihy3t, withhelde His vengauce' (407-408). 'He sayde' is generally taken to refer back to the King's previous statement (404); but given that the other pronoun in the line and both in the next line clearly refer to God, it would be more natural to read 'he sayde' as referring to God. Clearly this reading is problematic, appearing to make the last clause of 407 contradict the first clause of 408. In fact, the two clauses work together to provide a thoroughly Bradwardinian explanation of the Ninevan prophecy. 'Bihy3t' can mean 'threaten', rather than promise, especially in the context of divine punishment.⁶⁹⁷ Thus although God warned the Ninevans of what would happen 'nisi pœnitueritis de peccatis', their repentance and His forgiveness somehow still fulfil what 'he sayde'. In fact, God's forgiveness actually works to establish both his sovereignty and the trustworthiness of His word, according to His closing rebuke of Jonah: 'Why schulde I wrath wyth hem, syþen wy3ez wyl torne, / And cum and cnawe Me for Kyng and My carpe leue?' (518-19).

Indeed, in another addition to the Biblical account, God claims to have guided the actions of the Ninevans even before their repentance: 'I loked hem ful longe and hem on lode hade' (504). This admission represents a view of God's predestination much more in

⁶⁹⁷ MED, 'bihoten', 3.

sympathy with the ‘determinist’ than the ‘Pelagian’ position. In fact, if there is a voice in the poem that seems to mimic, or even parody, Holcot’s logic and theology, it is not the voice of the narrator, but the dubious voice of Jonah himself. It is he who imputes deceit to God and who is dissatisfied with forgiveness as a fulfilment of the prophecy against Nineveh and it is he who questions God’s omniscience and power in directing human action. The poet concludes his narrative with God’s angry statement of his supremacy and initiative in human action, including bringing men to repentance and forgiveness, adding only a final exhortation for penitence, submission and patience (528-31). As Richard Firth Green has put it, the tale ends with God teaching Jonah ‘the completely orthodox lesson that while we owe him absolute obedience, God owes us nothing in return’.⁶⁹⁸

A Point of Principle

Jonah’s final remonstrance with God also links the poem’s discussion of submission to the will of God with the more logico-mathematical problems relating to infinity and proportionality that I have discussed in relation to *Sir Gawain* and *Pearl*:

[‘]Why art þou so waymot, wyȝe, for so lyttel?
 ‘Hit is not lyttel,’ quoth þe lede, ‘bot lykker to ryȝt[.]’ (492-93)

This passage should be compared with the lines from *Pearl* discussed above:

[‘]Þenne þe lasse in werke to take more able,
 And euer þe lenger þe lasse þe more.’
 ‘Of more and lasse in Godez ryche,’
 þat gentyll sayde, ‘lys no joparde,
 For þer is vch mon payed inlyche,
 Wheþer lyttel oþer much be hys rewarde[.]’ (599-604)

Pearl is answering the Jeweller’s sophism of intension and remission in which the intension of meritorious action increases in inverse proportion to its extension, like Swineshead’s thought-experiment of the variously heated bar. The point of interest to the Jeweller is not simply why his daughter has been granted such a reward, but the principle that God’s action

⁶⁹⁸ Green, *Crisis of Truth*, p. 359.

of unconditional grace seems to imply. Similarly, God's demonstration of his absolute power to punish or forgive just as he wishes is the question at issue between Jonah and Himself. In both cases, it is up to God to decide what is 'lyttel oþer much', but in both cases His gracious action confuses and annoys human beings for whom an extrapolated principle is more important. That is the implication of Jonah's assertion that the question is not so much a little *thing* but 'lykker to ry3t': it is not a single *point* of disagreement but rather a whole *line* of reasoning. For the Jeweller, the littler the thing becomes, the clearer the problem becomes. In a way, the same is true for Jonah: the extent of his anger at each of God's unilateral actions (the forgiveness of Nineveh and the destruction of the woodbine) seems inversely proportional to their importance.

This exchange between God and Jonah seems to allude to the old debate between individualists and infinitists that was still very much alive at Oxford, and elsewhere, in the first half of the fourteenth century. The controversy was largely put to bed by Bradwardine himself, but did, to a certain extent, gain a new lease of life in the second half of the fourteenth century, thanks to Wyclif's endorsement of what was, by then, the discredited individualist position.⁶⁹⁹ Laurence Eldredge has suggested, without mentioning this passage, that the *Gawain*-poet's recurrent interest in the word 'point' is related precisely to that controversy. For instance, Eldredge argues that 'the poet insists that patience is a point, not merely by means of the repetition in the first and last lines of the poem, but also by stressing its place as the last of the eight beatitudes and thus the point with which the line of beatitudes ends'.⁷⁰⁰ In other words, the principle running through the beatitudes terminates in a single distinguishable virtue: patience.

The indivisibilist position was, at least from the time of Grosseteste onwards, associated with a strong emphasis on the omniscience of God. I have discussed above how

⁶⁹⁹ Eldredge, 'Late Medieval Discussions', p. 98 (note) and pp. 109-110.

⁷⁰⁰ Eldredge, 'Late Medieval Discussions', p. 110.

Wyclif's predestinarian theology related to his indivisibilism. Eldredge also notes the 'perennial objection' of the indivisibilists that 'if a line really were infinitely divisible, then not even God would know exactly how many parts it had'.⁷⁰¹ God's ability to identify each particular that makes up his own created universe is as essential a point of theology to Wyclif, as it is a point of logic. Eldredge argues, therefore, that the *Gawain*-poet is utilising an indivisibilist position for his own purposes in *Patience*.

Eldredge does not quite suggest, and I think he is right to avoid the suggestion, that the *Gawain*-poet simply endorses the indivisibilist position. The complex manner in which the topos of singularity is treated in *Pearl* would be sufficient to counteract such a reading. Nevertheless, the balance of probabilities seems to be that the *Gawain*-poet did indeed incline towards an indivisibilist position. It is quite true that the naivety of the 'Jeweller's' obsession with the 'singularity' of Pearl is exposed by the vision of the joyful heavenly continuum into which she seamlessly fits. Nevertheless, the Maiden's response to the 'Jeweller's' objection about proportionality of merit seems to carry authorial support. Her (and therefore perhaps the author's) argument is dependent upon a quasi-indivisibilist emphasis on singular instances, which is found again in God's response to Jonah's similar objection in *Patience*.

Thus although it certainly cannot be claimed that the *Gawain*-poet was a straightforward indivisibilist, two things seem probable. Firstly, he was aware of the logical controversies surrounding the continuum, still alive although largely decided by his day, and was comfortable enough to use the potent imagery it provided in his poetry, sometimes loosely but sometimes more precisely and with the eye of a thinker not wholly ignorant of contemporary logic. Secondly, he was more attracted by the indivisibilist position than its contrary and, significantly, the more precisely his poetry deals with the entwined logico-theological problems of predestination, free will and merit, the more he tends to invoke

⁷⁰¹ Eldredge, 'Late Medieval Discussions', p. 94.

indivisibilist patterns of thought, as if the indivisibilist and predestinarian positions were associated in his mind.

The Sophistication of the *Gawain*-poet

The *Gawain*-poet confronts some of the most emotionally and intellectually difficult problems of human existence: the labyrinthine quest for truth, the tragic (and comic) limitations of loyalty, the irreconcilable conflicts of human social contracts, the mental bewilderment of grief, the apparent unfairness of human merit and the infinite complexity of man's relationship with God. Within his works the intellectual is itself inseparably tangled up with the emotional and the ethical; and to miss the 'sophistication' (in both senses) of his philosophical concerns is to diminish irreparably the potency of the other two. The problems that he addresses are, from a human perspective, generally 'insoluble'. This does not mean, however, that the *Gawain*-poet wants his audience to give up thinking about them. As I discussed in relation to *Pearl*, the gem buried in the ground was a late-medieval logical metaphor for the fact that a solution may be one day found for apparent *insolubilia*. The *Gawain*-poet is certainly not arguing that divine action is essentially immune to reason or logic, as has been suggested: indeed far from it.⁷⁰² Struggling intellectually with such problems is an important part of human and spiritual progress, even though the answers are, in this world, unsatisfactory.

Although the *Gawain*-poet's presentations of contemporary philosophical concerns are subtle enough to defy *simplistic* deductions about his own intellectual and theological positions, nevertheless his poems do, in places, take a precise enough interest in the specifics of logical, mathematical and theological problems to allow a degree of cautious speculation. I will advance one possible interpretation of the material. Philip F. O'Mara has argued that the *Gawain*-poet was influenced by Holcot, possibly through personal acquaintance, and that the

⁷⁰² Owen, 'Prudence of *Pearl*', esp. pp. 426-27.

poet may even have been one of Holcot's students.⁷⁰³ He thus sees the Cotton Nero poems as validating a Holcotian (or, in Bradwardine's eyes, 'Pelagian') view that God will save all who do 'quod in se est'. The emphasis of O'Mara's analysis is almost entirely theological and focuses on whether non-Christians can be saved, the main example being Bertilak (in spite of the fact that he is ostensibly a Christian in *Sir Gawain*, which fact O'Mara mentions briefly but inexplicably disregards). I agree that the *Gawain*-poet was probably acquainted with Holcot's work. A more thoroughly *logico*-theological approach, however, seems to lend more weight to 'anti-Pelagian' theological readings of his work. The *Gawain*-poet does not entirely sympathise with a Holcotian understanding of the problem of future contingency, especially the conception of divine action as trickery or deceit. In *Sir Gawain*, *human* covenants and *human* faithfulness are demonstrated to be incapable of meeting the almost limitless demands that may be placed upon them. That is human nature, and the *Gawain*-poet is, I think, sympathetic to human failure. However, both *Pearl* and *Patience* make clear that God is no trickster, his covenants must not be regarded as broken, and man is not defrauded.

There are therefore firmer grounds to speculate, with Richard Firth Green and Carleton Brown, that, as a thinker, the *Gawain*-poet can be positioned somewhere along the logico-theological continuum between the Bradwardinian and Wycliffite positions. Due to his seeming emphasis on the indivisibilist paradigm, it might be argued that he is at least partially in sympathy with the Wycliffite evolution of early fourteenth-century predestinarianism. Israel Gollancz rather rashly proposed Strode as the author of *Pearl*.⁷⁰⁴ If my speculation is correct, however, the *Gawain*-poet offers a very interesting counterpoint to Strodean thought as glimpsed in the poetry of Chaucer. Strode greatly admired Bradwardine for his strictly logical insight, but seems to have differed greatly with him on the logico-theological questions of free will and predestination, and especially to have regarded Wyclif's

⁷⁰³ O'Mara, 'Robert Holcot's "Ecumenism"'.
⁷⁰⁴ Gollancz, 'Strode, Ralph', in *DNB*, LV, p. 58.

development of Bradwardine's position as both dangerous and illogical. If the *Gawain*-poet admired Bradwardine for his predestinarian theology, but tended to find in Wyclif's logico-mathematical position a more appealing literary inspiration, then he can in some ways be viewed as Strode's intellectual mirror-image. Both were, to some extent Bradwardinians, but each was, in different ways, a dissenting disciple of their master.

CONCLUSION

It is unfortunate that for too long the logical texts of the Middle Ages have been read only by logicians. Modern logicians have in one way performed a great service in keeping alive the traditional motives and concerns of their predecessors. Modern historians of logic have done much to make otherwise inaccessible texts increasingly available to a wider audience. Yet both tend to be interested, quite understandably, in the structures of thought, to the detriment of the means of expression. For this reason, any reader of medieval logical texts interested in the literary expression of their ideas must approach modern translations and commentaries with considerable caution, since they occasionally substitute alternatives to the ‘imagery’ employed by medieval thinkers, in order to preserve the same basic thought structures for a modern readership. Such scholars can hardly be blamed for not paying closer attention to the literary formulations within these texts: that is not their job. It is, in fact, the job of literary scholars and critics.

Only really within the last decade or so have students of English literature begun to appreciate the value of utilising with more precision what is, in fact, a vast range of carefully constructed logical ‘literature’, and even so it has been difficult to get away from preconstructed, totalising conceptions of late-medieval philosophy, such as ‘nominalism’ and ‘dialectic’. It is my contention that there are advantages in reading fourteenth-century logical texts with an unashamedly literary eye; indeed, it is my contention that it is in precisely *that* way that poets such as Chaucer, Gower and the *Gawain*-poet would probably have read such texts. Chaucer would have been more immediately interested in an absurd image than a complex syllogism, although his interest in the one may well have led to a more precise understanding of the other. The *Gawain*-poet saw in the knotty image of the *insolubilia* or the

extreme ‘casus’ of the *sophismata* delightful literary possibilities; through them, his more complex intellectual and moral concerns found a means of fictional expression. To put it another way, much of the scholarship of medieval literature, even when it has embraced the philosophical concerns of the writers it deals with, has tended to be overly *deductive*: it begins with a generalised manifesto, such as ‘nominalism’, and then coerces the author’s concerns into that framework. It seems to me that in relation to late-medieval logic and philosophy, literary scholarship ought to be more *inductive*: it must begin with the details of linguistic expression, imagery and structure and so gradually build a sympathetic understanding of the writer’s broader interests.

I would also suggest that the preceding chapters point towards something like a re-evaluation of the intellectual categories that we have become used to inhabiting. Despite the modern western world’s rather hubristic confidence in the rigour of its commitment to ‘science’, what it often lacks is the precision, curiosity and persistence with which medieval logicians asked questions about the world. Furthermore, due to the modern (and peculiarly English) emphasis on disciplinary specialisation, mathematics and logic have, in effect, been ghettoised, even in (and perhaps particularly in) academic contexts. The context in which literary criticism is written inevitably shapes the preconceptions that underpin it, so that the effect of this has been to make it much more difficult for modern readers of medieval texts to appreciate the importance of their logical and mathematical contexts. I hope that the preceding analysis of the cultural influence of late-medieval logic has demonstrated that readers and writers of literary texts in the fourteenth-century were interested in their contemporary logic because late-medieval logicians were themselves interested in being interesting.

Conversely it seems that the most influential *literary* writers of the late fourteenth century were concerned with having something to say to the world of logic and mathematics.

This should by no means come as a surprise, given the longstanding interplay between logic, mathematics and poetry. It was not uncommon for mathematical and computational treatises to be set down in verse. By means of the transmission of Aristotle from Averroes and other Arab philosophers, to schoolmen such as Vincent of Beauvais and Aquinas, 'the idea that poetry was part of logic was firmly established in scholasticism'.⁷⁰⁵ Mnemonic verses were used to memorise logical procedures.⁷⁰⁶ It is by means of a medieval *literary* poem, the *De vetula*, that the early development of proto-probability theory has been demonstrated. Chaucer makes his desire to appeal to *logical* readers explicit in his dedication of *Troilus and Criseyde* to Ralph Strode; Gower seems to demonstrate a similar ambition to be seen as a literary favourite of 'philosophical' Strode; and although earlier assertions of the identity of the *Gawain*-poet and Ralph Strode were undoubtedly misjudged, the poems of Cotton Nero A. x nevertheless pulsate with a love of logical controversy that would have been quite at home in that extraordinary literary circle. Chaucer's work may well have been instrumental in shaping an understanding of Wyclif's logic and theology that lasted almost six hundred years. Gower's work may have helped to cement a more sophisticated understanding of mathematical probability, to the extent that scholars searching for the roots of modern probability theory are still quoting his poetry over half a millennium later. These are no small achievements, no insignificant testimonies to the power of medieval literature and its relevance to later thought; and yet literary scholars have left it to others to explore them. The most basic conclusion to be drawn from my research is that there is such a powerful symbiosis between medieval literary and logical texts that the comparison between the literature of logic and the logic of literature is almost inevitably productive.

⁷⁰⁵ Minnis and Scott (eds.), *Medieval Literary Theory*, p. 280.

⁷⁰⁶ See the Introduction.

APPENDICES

Appendix 1: A Selection of Sophismatic Propositions from the Fourteenth Century

- It is not possible to imagine a mountain of gold.⁷⁰⁷
- You will throw me in the water.⁷⁰⁸
- Roses are promised to you.⁷⁰⁹
- The white will be black.⁷¹⁰
- Every man who is white runs.⁷¹¹
- Plato will be damned.⁷¹²
- I wish to go to Rome if Socrates goes.⁷¹³
- Socrates the traveller will be damned.⁷¹⁴
- Socrates the astronomer knows some stars to be above our hemisphere.⁷¹⁵
- Aristotle's horse walked.⁷¹⁶
- You are the Pope therefore you are a priest.⁷¹⁷
- The King may sit.⁷¹⁸
- Baf will be baptised.⁷¹⁹
- You believe your father to be an ass.⁷²⁰
- You are the brother of an ass.⁷²¹
- A horse is an ass.⁷²²
- I owe you a horse.⁷²³

⁷⁰⁷ Holcot, *Seeing the Future*, p. 67. *Sophismata* given in Latin in the edition cited appear here translated.

⁷⁰⁸ Buridan, *Sophisms*, p. 219 (Chapter 8, Sophism 17).

⁷⁰⁹ Buridan, *Tractatus de consequentiis*, 1. 6. 16.

⁷¹⁰ Buridan, *Sophisms*, p. 110 (Chapter 4, Sophism 3).

⁷¹¹ Heytesbury, *Sophismata* (Sophism 5, p. 1, fols 91^{rb}-97^{ra} (fol. 91^{rb})).

⁷¹² Holcot, *Seeing the Future*, p. 131.

⁷¹³ Buridan: *Sophisms*, p. 221 (Chapter 8, Discussion of Sophism 18).

⁷¹⁴ Holcot, *Seeing the Future*, p. 105.

⁷¹⁵ Buridan, *Sophisms*, p. 131 (Chapter 4, Sophism 14).

⁷¹⁶ Buridan, *Sophisms*, p. 83 (Chapter 2, Sophism 2).

⁷¹⁷ Strode, 'Ralph Strode's *Consequentiae*', p. 337.

⁷¹⁸ Holcot, *Seeing the Future*, p. 170.

⁷¹⁹ Buridan, *Sophisms*, p. 161 (Chapter 6, Sophism 2).

⁷²⁰ Buridan, *Sophisms*, p. 134 (Chapter 4, Solution to Sophism 11).

⁷²¹ Heytesbury, *Sophismata asinina*, p. 418.

⁷²² Buridan, *Sophisms*, p. 64 (Chapter 1, Sophism 2).

- A chimera is not a hircocervus.⁷²⁴
- The ass flies, so the ass has wings.⁷²⁵
- Socrates is able to be an ass.⁷²⁶
- God is an ass.⁷²⁷
- Every God is the Son, every Father of God is God, so every Father of God is the Son.⁷²⁸
- Antichrist is not a chimera.⁷²⁹
- The corrupt is to be generated.⁷³⁰

⁷²³ Buridan, *Sophisms*, p. 137 (Chapter 4, Sophism 15).

⁷²⁴ Holcot, *Seeing the Future*, p. 67.

⁷²⁵ Buridan, *Sophisms*, p. 180 (Chapter 8, Discussion of Sophism 1).

⁷²⁶ Heytesbury, *Sophismata* (Sophism 1, p. 12, fols 77^{va}-81^{fb} (fol. 79^{ra})).

⁷²⁷ Buridan, *Sophisms*, p. 196 (Chapter 8, Sophism 7).

⁷²⁸ Buridan, *Sophisms*, p. 146 (Chapter 5, Discussion of Sophism 2).

⁷²⁹ Holcot, *Seeing the Future*, p. 70.

⁷³⁰ Buridan, *Sophisms*, p. 149 (Chapter 5, Sophism 5).

Appendix 2:

Table 1: No. of occurrences of selected categorematic terms (and derivatives) in different textual or propositional contexts in Buridan's *Sophismata*.⁷³¹

Term	No. of Occurrences	Term	No. of Occurrences
Man	147	Eat	11
Socrates	100	Robert	11
Ass	72	Father (excluding divine contexts)	11
Horse	66	Stone	11
Run	62	Nothing	10
God	56	Wall	9
Animal	52	Creation	8
White	36	Young	8
'A'	35	Star	8
Plato	34	Curse	7
Antichrist	27	Old	6
Aristotle	26	'Baf'	6
'B'	25	Angle	6
False	25	Vacuum	5
Chimera	24	Non-being	5
Generation	21	John	5
Owe	20	Heaven(s)	5
Death	18	Triangle	4
Black	16	'C'	4
'Risible' (able to laugh)	15	Circle	3
Walk	15	Peter	3
Corruption	13	Goat	3

⁷³¹ The numerical results given in the table are not intended as strictly statistical, but as loosely indicative of general trends. The numbers given are based on my own working concordance of terms and propositions in Scott's translation. Briefly, terms are not counted more than once if they appear in the same propositional context more than once in the same sub-section of the treatise (e.g. in a single continuous discussion of a single sophism, or under the same 'conclusion' etc). Thus, if the proposition 'Socrates is white' were to appear more than once in the same sub-section, each term would still only be counted once; however, if 'Socrates is black' were to be used in the same sub-section, the term 'Socrates' would be counted twice, since it is being used in a different propositional context; or if 'Socrates is white' were to appear again in a different sub-section of the treatise, both terms would be counted again, because they are being used in a different discursive context, and so on. Proper names are included only when they appear as terms in a proposition (such as 'Aristotle is a chimera'), not as references to works (of which, in the case of Aristotle, there are many).

Appendix 3:

An illustration depicting the 'wolf, goat, cabbage' puzzle, in the Ormesby Psalter (Oxford, Bodleian Library MS Douce 366, fol. 89^r).



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