

WALTER SEGRAVE'S 'INSOLUBLES': A RESTRICTIVIST RESPONSE TO BRADWARDINE¹

STEPHEN READ

ABSTRACT. Walter de Segrave was at Merton College, Oxford from 1321 until at least 1338. Segrave's 'Insolubles' is his only known work, which appears to have been composed at Oxford in the late 1320s or early 1330s, consistent with the fact that it is clearly a response to Bradwardine's own 'Insolubles', composed when Bradwardine was regent master at Balliol College, that is, from 1321-23, before he moved to Merton in 1323. The dominant theory at the time Bradwardine was writing was restrictivism, the claim that a part cannot supposit for the whole of which it is part (and consequently, for its contradictory or anything convertible with it), at least in the presence of a privative term, in particular, privative alethic and epistemic terms such as 'false' and 'unknown'. Accordingly, Bradwardine spends two and a half chapters attacking restrictivist theories, in particular, that of Walter Burley. Segrave's treatise is an extensive and detailed response to Bradwardine. He defends restrictivism by presenting a well-thought out reason for the restriction of supposition required to avoid contradiction. Where Burley and Bradwardine both attributed the fallacy in insolubles to what Aristotle described as the fallacy of the conditional and the unconditional (*secundum quid et simpliciter*), Segrave attributed it to the fallacy of accident, turning on a variation in the supposition of the middle term and the extremes in what might otherwise appear to be a sound syllogism.

According to Emden,² Walter de Segrave (or de Sexgrave) was at Merton College, Oxford from 1321 until at least 1338, and had become Magister Artium by 1336. The Segrave family was based at Segrave, or Seagrave, in Leicestershire, in the middle of England and about as far from the sea as it is possible to be in England, and recorded as Setgrave in the Domesday Book. The first Baron, Nicholas de Segrave, died in 1295 and Gilbert, his youngest son, was Bishop of London from 1313

¹The present work was funded by Leverhulme Trust Research Project Grant RPG-2016-333: "Theories of Paradox in Fourteenth-Century Logic: Edition and Translation of Key Texts".

²Emden 1959, III, 1664.

until his death in 1316.³ From 1340-42 Walter de Segrave was Chancellor to Richard Aungerville, that is, Richard de Bury, Bishop of Durham, who famously gathered around him some of the very best minds in the kingdom, including Walter Burley, Thomas Bradwardine and Richard Kilvington. Segrave subsequently became Dean of Chichester, but was dead by 1349. His ‘Insolubles’, his only known work, appears to have been composed at Oxford in the late 1320s or early 1330s, a place and date which is consistent with the fact that it is clearly a response to Bradwardine’s own ‘Insolubles’, itself composed (according to the explicit of the Madrid manuscript of the work) when Bradwardine was regent master at Balliol College, that is, from 1321-23, before he moved to Merton in 1323.⁴ Walter’s text also, we will see, shows awareness of Kilvington’s ‘Sophismata’, composed at Oxford (Richard was across the road at Oriel College) in the mid-1320s.⁵

It was standard practice in medieval treatises on insolubles, at least from Bradwardine onwards, to start by describing the faults of rival theories. The dominant theory at the time Bradwardine was writing was restrictivism, the claim that a part cannot supposit for the whole of which it is part (and consequently, for its contradictory or anything convertible with it), at least in the presence of a privative term, in particular, privative alethic and epistemic terms such as ‘false’ and ‘unknown’. Accordingly, Bradwardine spends two and a half chapters attacking restrictivist theories, leaving only half a chapter to dismiss other solutions before turning to present his own, or as he says, “Aristotle’s correct solution”.

1. BRADWARDINE’S CRITIQUE OF RESTRICTIVISM

A cursory glance at Burley’s treatise on insolubles might lead one to think that Burley rejects restrictivism along with cassationism, that is, the claim that those uttering purported insolubles say nothing at all, since if they did, they would say something true or false, and if so, both, that is, a contradiction. Cassationists are dismissed by Burley as denying the senses since one only has to listen to Socrates uttering ‘Socrates says a falsehood’ to hear that he did say something:

³For further information on the de Segrave family, see Segrave 1936.

⁴See Thomas Bradwardine 2010, 2.

⁵See Kretzmann and Kretzmann 1990a,b.

“Furthermore, they deny the senses, because they can hear that Socrates says that he says a falsehood, so that Socrates says a falsehood can be said by Socrates.”⁶

Burley follows this with a similarly blunt rejection of unqualified restrictivism by observing that if Socrates starts to speak by saying ‘Something is said by Socrates’, he’s clearly said something true, but the only thing he said was ‘Something is said by Socrates’, so ‘something’ there must supposit for the whole of which it is part.

But although he rejects unqualified restrictivism, Burley’s own solution is a qualified version: no part can supposit for the whole of which it is part when that self-reference (or self-reflection) is accompanied by a privative determination such as ‘false’ or ‘not true’:

“Moreover, one should realise that a part never supposits for the whole of which it is part when, putting the whole in the place of a part, what results is reflection of the same on itself with a privative determination.”⁷

The reason is, he claims, that everyone saying anything asserts that what he says is true,⁸ so if anyone says that what he is saying is false he asserts both that it is true and it is false, and so implicitly asserts a contradiction. Bradwardine, in a somewhat similar move, will infer that what was said is false, as is every self-contradictory utterance. Burley, however, infers the conclusion above, that no part supposits for the whole and so on; he calls it a rule (*regula*). He goes on to illustrate the application of the rule to numerous examples at length.

Bradwardine focusses his criticism of restrictivism on what he calls the “roots” (*radices*) in its “basic assumption”, that a part cannot supposit for the whole of which it is part, however that is qualified:

“Now we could concoct this reason: if a part in such cases did supposit for the whole of which it was part, it would follow that the same proposition was true and false and that insolubles could not possibly be solved. But neither follows, as will be shown in what follows. So this is no

⁶Walter Burley 1970, §2.03: “*Praeterea ipsi negant sensum: quia ipsi possunt audire Sortem dicere se dicere falsum, ergo Sortem dicere falsum potest dici a Sorte.*”

⁷Walter Burley 1970, §3.03: “*Uterium sciendum quod nunquam supponit pars pro toto cuius est pars quando, posito toto loco partis, accidit reflexio eiusdem supra se ipsum cum determinatione privativa.*”

⁸Walter Burley 1970, §3.02: “*Nam quilibet dicens asserit suum dictum esse verum.*”

more than a concoction of those who do not know how to respond otherwise to the insolubles.”⁹

There are many assumptions lying behind the derivation of contradiction in the case of the insolubles, and Bradwardine criticizes restrictivism for giving no reason for singling out self-reference (even self-reference coupled with the presence of a privative term) as the fatal flaw.

In contrast to Burley’s casual and informal presentation of his solution (mainly by example), Bradwardine sets out his assumptions (or postulates) explicitly in order:

“There are six postulates:

- (P1) Every proposition is true or false;
- (P2) Every proposition signifies or means as a matter of fact or absolutely (respectively) everything which follows from it as a matter of fact or absolutely.
- (P3) A part can supposit for its whole and for its opposite and for what is equivalent to them.
(This postulate, even if it is not immediately obvious, can nonetheless be assumed because it is clear enough from previous (chapters).)
- (P4) Conjunctions and disjunctions with mutually contradictory parts contradict each other.
- (P5) From any disjunction together with the opposite of one of its parts the other part may be inferred.
- (P6) If a conjunction is true each part is true and conversely; and if it is false, one of its parts is false and conversely. And if a disjunction is true, one of its parts is true and conversely; and if it is false, each part is false and conversely.”¹⁰

⁹Thomas Bradwardine 2010, ¶3.1.4: “*Posset autem fingi hec ratio: si pars pro suo toto supponeret in talibus, sequeretur eandem propositionem esse veram et falsam et quod insolubilia nullo modo possent solvi. Neutrum sequitur, ut in sequentibus ostendetur. Hoc ergo non est nisi figmentum illorum qui ad insolubilia nesciunt aliter respondere.*”

¹⁰Thomas Bradwardine 2010, ¶6.3: “*Suppositiones autem sunt sex. Quarum prima est ista: quelibet propositio est vera vel falsa. Secunda est ista: quelibet propositio significat sive denotat ut nunc vel simpliciter omne quod sequitur ad istam ut nunc vel simpliciter. Tertia est ista: pars potest supponere pro suo toto et eius opposito et convertibilibus earundem. Hec autem suppositio, licet per se manifesta non fuerit, tamen hec supponi potest, quia ex prioribus satis patet. Quarta est ista: copulativa et disiunctiva ex partibus sibi contradicentibus invicem contradicunt. Quinta est ista: ex qualibet disiunctiva cum opposito unius suarum partium reliqua pars inferitur. Sexta est ista: si aliqua copulativa sit vera quelibet eius pars est vera, et econtra. Et si sit*

The third postulate affirms Bradwardine's rejection of restrictivism. The second postulate is what is most distinctive of his solution. Behind it lies Bradwardine's fundamental idea, namely, that propositions may, indeed do mean more than at first appears. This claim became the main battleground in debates about insolubles for the rest of the fourteenth century, and beyond. It was not completely novel, for as we have seen, Burley himself claimed that anyone saying anything implicitly asserts that what they say is true, an idea going back at least to Bonaventure.¹¹ But Bradwardine took it further, and (P2) is at once a control and a generator of what lies hidden in a proposition. He also, in modern parlance, moved that hidden component from illocutionary force (assertion) to locutionary meaning (signification). Very many subsequent proposals about the insolubles, those of William Heytesbury, Gregory of Rimini, John Buridan, Albert of Saxony, Peter of Ailly, Marsilius of Inghen, Robert Eland, Ralph Strode, John of Holland and John Hunter, both at Oxford and at Paris, turned on the existence of such tacit or implicit signification. Few stood out against it, notably Roger Swyneshed and his followers.

On all the other postulates, including (P1), Bradwardine and Burley agree. For every insoluble is either affirmative or negative, says Burley,¹² and every affirmative insoluble is false and every negative insoluble is true, he says—but here Bradwardine differs: for him, every insoluble is false. Burley does not spell out his account of truth and falsehood here, but he does elsewhere. Conti 2016, §2 notes that “the three main principles of his semantic theory remained the same throughout his academic career,” the third being that a proposition “is true if and only if it is the sign of ‘the truth of things’ (*veritas rerum*).” In general, Burley's account was that truth is the adequation of thought and reality (Conti 2016, §5), but more practically, the true propositions correspond to real propositions composed of the significates of their constituent terms together with a copula of identity, so that an affirmative subject-predicate proposition is true if and only if the significates are identical (*loc.cit.*). But given his extended notion of signification, Bradwardine has to modify the account of truth. Accordingly, he defines a true proposition as an utterance signifying only as things are and a false proposition as an utterance signifying other than things are:

falsa, aliqua eius pars est falsa et econtra. Et si aliqua disiunctiva sit vera, aliqua eius pars est vera, et econtra. Et si falsa, quelibet eius pars est falsa et econtra.”

¹¹See Spade and Read 2021, §3.8.

¹²Walter Burley 1970, §3.05, and Thomas Bradwardine 2010, ¶6.1 agrees.

- “The definitions are two, of which the first is this:
 (D1) A true proposition is an utterance signifying only as things are.
 The second is this:
 (D2) A false proposition is an utterance signifying other than things are.”¹³

From these definitions, together with the six postulates, he is able to prove his main conclusion:

“If any proposition signifies itself not to be true or itself to be false, it signifies itself to be true and is false.”¹⁴

Suppose that all I say is ‘I am not speaking the truth’ (*ego non dico verum*), for example. By Bradwardine’s main conclusion this signifies not only that I am not speaking the truth, and so that it itself is not true (by P2, since it is the only thing I say), but also that it is true. So things cannot be wholly as it signifies, since it cannot be both true and not true. So, for Bradwardine, what I said was false. Not so for Burley, as he spells out at length:

“If anyone begins to speak like this: ‘I am not speaking the truth’, then this is true.”¹⁵

For ‘truth’ in that utterance cannot supposit for the whole of which it is part. It must supposit either for some other utterance of mine, or for nothing. But there was no other utterance of mine. So ‘truth’ here lacks a *suppositum*. Now as a general rule, the medievals took existential import seriously. Affirmatives with empty terms are false, and correspondingly, negative propositions with empty terms are true.¹⁶ So for Burley, my utterance is true.

¹³Thomas Bradwardine 2010, ¶6.2: “*Diffinitiones autem sunt due. Quarum prima est ista: propositio vera est oratio significans tantum sicut est. Secunda est ista: propositio falsa est oratio significans aliter quam est.*”

¹⁴Thomas Bradwardine 2010, ¶6.4: “*si aliqua propositio significet se non esse veram vel se esse falsam, ipsa significat se esse veram et est falsa.*”

¹⁵Walter Burley 1970, §3.05: “*si aliquis incipiat sic loqui: ego non dico verum, tunc hec est vera.*”

¹⁶See, e.g., Klima 2001, p.198 and n.9. Many authors, but not all (e.g. Ockham), treated necessary and law-like statements such as ‘homo est animal’ differently, maintaining they were true even when the terms were empty. In such a case Burley would say that ‘homo’ has general simple supposition (*suppositio simplex generalis*) for the universal: see Burley 1955, p. 11 (2000, p. 93). But the insolubles in question are not necessary or law-like.

2. SEGRAVE'S SOLUTION

Like Burley, Segrave shares many assumptions with Bradwardine, apart of course from (P3). Indeed, at a couple of points Segrave appears to endorse Bradwardine's second postulate (P2), that a proposition signifies everything implied by what it signifies.¹⁷ For the heart of Segrave's solution is that whoever asserts a proposition asserts that it is true, as we saw Burley and Bonaventure claim. Consequently, the restriction on supposition that Segrave maintains is that

“the extremes of a proposition only supposit ⟨for⟩ those things about which the whole can mean that it itself is true, assuming that it exists, and those ⟨extremes⟩ do not supposit ⟨for⟩ those things about which the whole, assuming that it exists, would mean that it itself is false. And this is what I claim.”¹⁸

The reason Segrave gives is that

“it is because the extremes take ⟨their⟩ supposition from the copula, whose significate is that ⟨the proposition⟩ is true, as was said, so ⟨the extreme⟩ does not supposit for anything about which the whole would mean that it itself is false or is not true, because this would be inconsistent with the significate of the copula, and so ⟨the extremes⟩ should be restricted by the meaning of the copula.”¹⁹

Consider, e.g., he says

A falsehood exists,

call it *A*, and suppose there is no other falsehood—perhaps God has annihilated all other propositions, or all other existential propositions.

“But it is evident that this:

A falsehood exists,

does not signify that no other falsehood exists. For it always signifies in one way for its own part, since it is not

¹⁷On interpreting (P2) as a closure postulate, see, e.g., Thomas Bradwardine 2010, ‘Introduction’, 17.

¹⁸Walter Segrave, §4.5.3: “*extrema propositionis tantum illa supponunt pro quibus totum potest denotare se esse verum, cum hoc quod ipsum est, et non supponunt talia pro quibus totum, cum hoc quod ipsum est, denotaret se esse falsum. Et hoc est propositum.*”

¹⁹Walter Segrave, §ad 4.6.2: “*quia extrema suppositionem capiunt a copula cuius significatum est esse verum, ut dictum est, ideo non supponit pro aliquo pro quo totum denotaret se esse falsum vel non esse verum, quia hoc repugnaret significato copule et ideo restringantur per copulativam rationem.*”

a knowing agent . . . But on the contrary: this inference is necessary:

A is false, therefore no other falsehood than *A* exists,

because if there were another falsehood, then *A* would be true, so whatever implies or signifies the premise signifies the conclusion, so from the opposite, the premise does not signify what the conclusion does not signify.”²⁰

According to Bradwardine, *A* signifies that *A* is false, since that follows *ut nunc* (as a matter of fact, given no other falsehood exists) from *A*—or rather, from what *A* signifies, namely, that a falsehood exists. But if *A* is false then no other falsehood exists, for, Segrave observes, if there were another falsehood, *A* would be true. So, by Bradwardine’s postulate, since *A* signifies that *A* is false, it signifies that no other falsehood exists. But we agreed that *A* does not signify that, so it follows that it does not signify that it itself is false, either.

One might wonder whether Segrave is really endorsing and using Bradwardine’s postulate (P2) in his own person here. For this would seem to be an argument against Bradwardine, and so arguably simply *ad hominem*. But Segrave also appeals to (P2) a little earlier in providing justification for Burley’s claim that every proposition signifies (or at least, for Burley, asserts) its own truth. Recall that Bradwardine’s main conclusion applies only to insolubles, that is, propositions signifying their own falsehood. Segrave bases his stronger claim on the role of the copula, referring to Aristotle’s remark that “the ‘is’ in a statement also means that the statement is true and ‘is not’ that it is not true” and Averroes’ comment that “‘being’ here signifies nothing but truth.”²¹ From this, Segrave draws his only postulate:

“The postulate is this: that every proposition means things to be in reality as it signifies. This is self-evident and is clear from the Philosopher and the Commentator in comment 14 on the fifth book of the *Metaphysics* and throughout the text of that comment: for the copula in

²⁰Walter Segrave, §ad 4.6—ad 4.6.1: “*Sed manifestum est quod ista: Falsum est, non significat nullum aliud falsum esse. Semper enim uno modo significat quantum est ex parte sua, cum non sit agens cognoscens . . . Sed contra: ista consequentia est necessaria: A est falsum, ergo nullum aliud falsum ab A est, quia si foret aliud falsum, tunc A esset verum, ergo quicquid infert vel significat antecedens significat consequens, ergo, ex opposito, quod non significat consequens non significat antecedens.*”

²¹Aristotle, *Metaphysics* Δ 7, 1017a31; Averroes 1562, fol.117vb (Ponzalli, 1971, 131-2): “*universaliter hoc nomen ens hic non significat nisi verum.*”

the proposition signifies being true, as is elucidated there

...

From this what was claimed follows ostensibly in this way: every proposition not involving a contradiction signifies things' being in reality as it signifies, and does not signify their not being (in reality as it signifies). But things' being in reality as the proposition signifies, and not their not being (in reality as it signifies) is for a proposition to be true and not false, provided the proposition exists; so every proposition not involving a contradiction, assuming it exists, signifies itself to be true and not false."²²

Segrave takes an example: suppose you are sitting. Then:

"... (this inference) is valid:

Things are in reality wholly as the proposition 'You are sitting' signifies, and it exists, therefore this proposition is true and not false, and the same (is true) of other propositions. Therefore, every proposition not involving a contradiction, assuming it exists, signifies itself to be true and not false."²³

The caveat "assuming it exists" reflects the fact that the medievals took propositions to be concrete, individual utterances which could not be true or false unless they actually existed. What is striking is that Segrave, taking 'You are sitting' as an arbitrary example, and generalizing it to represent any proposition, infers that any such non-contradictory proposition signifies itself to be true and not false. He is here clearly invoking Bradwardine's second postulate, that signification is closed under

²²Walter Segrave, §§4.5-4.5.2: "*Suppositio est hec: quod quelibet propositio denotat ita esse ex parte rei sicut (ipsa) significat. Hec est manifesta per se et patet per philosophum et commentatorem 5^o metaphysice commento 14 et in littera illius commenti per totum: copula enim in propositione significat esse verum, ut ibi declaratur ... Ex hac sequitur demonstrative propositum sic: quelibet propositio non includens contradictionem significat ita esse ex parte rei sicut ipsa significat, et non significat ita non esse; sed ita esse ex parte rei sicut ipsa propositio significat et non ita non esse est propositionem esse veram et non falsam, et hoc si illa propositio est; ergo quelibet propositio non includens contradictionem, cum hoc quod ipsa est, significat se esse veram et non falsam.*"

²³Walter Segrave, §4.5.2: "*Sequitur enim: Ita est ex parte rei in toto sicut significat ista: Tu sedes, et hec est, ergo hec est vera et non falsa, et ita de aliis. Ergo quelibet propositio non includens contradictionem, cum hoc quod ipsa est, significat se esse veram et non falsam.*"

implication, so that if from any non-contradictory proposition it follows that it is true and not false, then that is part of what it signifies.

3. THE FALLACY OF ACCIDENT

Burley and Bradwardine agree on one thing: that insolubles commit the fallacy of the conditional and the unconditional (*secundum quid et simpliciter*). They take this from Aristotle's treatment in his *De Sophisticis Elenchis* of the example of the man who swears that he is forsworn.²⁴ Segrave says they are mistaken: according to him, insolubles commit the fallacy of accident.

The fallacy of accident is the first of the fallacies described by Aristotle in *De Sophisticis Elenchis* as those "independent of language," and discussed at some length in ch.24. The classic example is the Hidden Man puzzle: you know your father (or Coriscus), your father (or Coriscus) is the man approaching, but you don't know the man approaching (since he is wearing a mask, or too far away to recognise, etc.). Aristotle's diagnosis was that one or more of the two properties attached to Coriscus (being known by you and being the man approaching) is accidental (or incidental) to him and so there is no essential connection to support the necessity required correctly to infer the conclusion from the premises.

It has to be said that Aristotle's discussion of the fallacy of accident is neither clear nor convincing. What he says about examples such as the Hidden Man appears to clash with the principle of expository syllogism (or *ecthesis*), stated in *De Sophisticis Elenchis* ch.6,²⁵ and arguably invoked by Aristotle in the *Prior Analytics* to give an alternative proof of Darapti:

"The demonstration [of Darapti] can also be carried out per impossibile [i.e., by indirect reduction] or by *ecthesis* [i.e. setting out]. For if both terms belong to all *S* and one chooses one of the *Ss*, say *N*, then both *P* and *R* will belong to it, so that *P* will belong to some *R*."²⁶

Buridan claims, pace Aristotle, that

"[e]very affirmative syllogism holds by virtue of the principle 'what things are said to be universally identical with

²⁴Aristotle, *De Sophisticis Elenchis*, ch.25; Walter Burley 1970, §4.05; Thomas Bradwardine 2010, §3.0, §§7.11 – 7.11.3 and 'Introduction', 6.

²⁵Aristotle, *De Sophisticis Elenchis*, ch.6, 168b32: "we claim that things that are the same as one and the same thing are also the same as each other."

²⁶Aristotle, *Prior Analytics* I ch.6, 28a24-26.

one and the same thing are also said to be identical between themselves',²⁷

that is, the very principle Aristotle states in ch.6 of *De Sophisticis Elenchis*, and negative syllogisms by a corresponding principle of difference. Yet the Hidden Man can be put in exactly the form Aristotle describes as *ecthesis*:

Being known by you is said of Coriscus
 Being the man approaching is said of Coriscus
 So being known by you is said of the man approaching.

How then can the premises be true and the conclusion false?²⁸

One medieval attempt to clarify the fallacy of accident so as to accord with Aristotle's theory of the syllogism is found in Giles of Rome. The fallacy arises, he said, when there is a variation in the supposition of the middle term:

"That the major term, if it is true of the middle [term], must then be true of the minor term, only happens in the case of those middle [terms] which are indifferent according to substance, because it requires the middle [term] not to vary or be diverse if the conclusion is to follow of necessity."²⁹

Giles attempts to square this with what Aristotle says in *De Sophisticis Elenchis*:

"It should be said that it is not Aristotle's intention to deny that in no way are the unknown and the known the same; but he means that this fallacy is almost argued in four terms and always has diversity of middle [term]; so he says that the same is not known and unknown, because 'Coriscus' is used in different ways and almost has the power of two terms, as he is placed with respect to knowledge and as he is approaching."³⁰

²⁷John Buridan 2001, §5.1.8, 313.

²⁸Aristotle's remarks on the fallacy of accident also appear to conflict with the *dici de omni*. See Gelber 1987, §I, where she discusses how Boethius and others tried to reconcile this conflict.

²⁹Aegidius Romanus, *Expositio supra libros Elenchorum*, cited in William of Ockham 1979, II ch.9 §2, 230-31: "*Nam quod maior extremitas, si verificetur de medio, oporteat eam verificari de minori extremitate, solum habet veritatem in iis mediis quae sunt indifferentia secundum substantiam, quia oportet medium non variari nec diversificari si debeat sequi de necessitate conclusio.*"

³⁰*ibid.*, cited in William of Ockham 1979, II ch.9 §2, p.231 n.3: "*Dicendum quod non est intentio Philosophi negare quod nullo modo sit idem ignoratum et cognitum;*

Burley extends the idea of variation of the supposition of terms to include the extremes:

“In this fallacy there should be assigned three, namely, the attribute, the accident and the subject thing. And according to Giles, the major extreme is always the attribute and the middle term the subject thing and the minor extreme the accident. But this is not a big worry, for it suffices for there to be this fallacy that some term is not included but is compared to two other terms in the argument. Whence it should be realised that the fallacy of accident sometimes results from a variation of the middle term and sometimes from a variation of the major or minor extreme.”³¹

It is not quite so straightforward, says Burley, to identify the fallacy in the Hidden Man puzzle:

“According to this fallacy, the paralogism is given in this way:

The one approaching is known by you, Coriscus
is the one approaching, hence etc.

Or like this:

Coriscus is known by you and is the one ap-
proaching, hence etc.

And it is usually said that it is a fallacy of accident from the variation of this term ‘Coriscus’, for concerning Coriscus in that he is known by you it is not included that he is the one approaching. But on the contrary: it seems that this is not a fallacy. For from the opposite of the consequent we may with the minor [premise] infer

sed ut ostendat quod haec fallacia quasi arguit in quattuor terminis et semper diversificat medium; ideo ait quod non idem cognoscitur et ignoratur, quia diversificatur ‘Coriscus’ et quasi habet vim duorum terminorum, ut stat sub cognitione et ut est veniens.”

³¹Walter Burley, *Tractatus super librum Elenchorum*, cited in William of Ockham 1979, *loc.cit.*: “*In ista fallacia solent assignari tria, scilicet attributum, accidens et res subiecta. Et secundum Aegidium maior extremitas semper est attributum et medius terminus res subiecta et minor extremitas accidens. De hoc tamen non est magna cura, sufficit enim ad hoc quod haec fallacia sit, quod aliquis terminus extraneo modo comparatur aliis duobus terminis in discursu. Unde sciendum quod fallacia accidentis aliquando accidit ex variatione medi termini et aliquando ex variatione maioris vel minoris extremitatis.*” This work may have been written at Oxford before Burley left for Paris in around 1307: see Ottman and Wood 1999, 7.

the opposite of the major [premise] syllogistically. For this syllogism is correct:

No one approaching is known by you, Coriscus
is the one approaching, hence etc.

Then it seems that in the first argument there is no fallacy of accident in respect of this conclusion, 'the one approaching is known by you', and Aristotle understood this, but it is a fallacy of accident in respect of the reduplicative conclusion, or in respect of this conclusion, 'the one approaching insofar as he is approaching is known by you', and then it is not a fallacy of accident from the variation of the middle term, but from the variation of the minor extreme, because this term 'the one approaching' is taken in different ways in the minor [premise] and in the conclusion."³²

Typical cases of reduplication employ the expressions 'qua' or 'insofar as', e.g., 'I know Coriscus qua the one approaching'. The medievals often used reduplication as a test for whether the fallacy of accident was present.³³ So, e.g., Ockham complains that it is commonly said that the Hidden Man paralogism is shown to commit a fallacy of accident since "it is not included that Coriscus is approaching insofar as he is known (by you)."³⁴

Segrave spells this out in response to an objection that Aristotle does not seem to attribute the fallacy of accident to insolubles:

³²Burley, *loc.cit.*, cited in William of Ockham 1979, II ch.9 §2, p.232 n.4: "*Secundum istam fallaciam paralogizatur sic: veniens cognoscitur a te; Coriscus est veniens; ergo etc. Vel sic: Coriscus cognoscitur a te et est veniens; ergo etc. Et dicitur communiter quod est fallacia accidentis ex variatione huius termini 'Coriscus', nam Corisco secundum quod cognoscitur a te extraneatur quod sit veniens. Contra: quod hic non sit fallacia, videtur. Nam ex opposito consequentis cum minore infertur oppositum maioris syllogistice. Nam iste syllogismus est rectus: nullum veniens cognoscitur a te; Coriscus est veniens; igitur etc. Tunc videtur quod in primo discursu non sit fallacia accidentis respectu huius conclusionis 'veniens cognoscitur a te', et hoc intelligit Aristoteles, sed est fallacia accidentis respectu conclusionis reduplicativae, vel respectu illius conclusionis 'veniens in quantum veniens cognoscitur a te', et tunc non est fallacia accidentis ex variatioine medii termini, sed ex variatione minoris extremitatis, quia iste terminus 'veniens' vario modo accipitur in minori et in conclusione."*

³³See, e.g., Gelber 1987, §IV.

³⁴William of Ockham 1979, II ch.9 §2, 231-32: "... dicitur communiter quod hic est fallacia accidentis ... quia extraneatur Corisco quod sit veniens in quantum cognoscitur."

“Finally, ⟨one can argue⟩ like this: if these paralogisms were to be solved by the fallacy of accident, then since it not likely that they passed unnoticed by Aristotle, he would have solved such paralogisms, where he does solve them, by the fallacy of accident.”³⁵

Segrave responds:

“To the final ⟨argument⟩ I say that where Aristotle solves the paralogisms by the fallacy of accident, he shows how to solve paralogisms of this kind, because they have the same defect, as was proved before ⟨in ch.4⟩. For in insolubles the supposition of the middle or extreme term always varies; and this is to commit the fallacy of accident. Thus these paralogisms are similar to insolubles where the middle term being ‘this something’ the extremes are not connected. For one argues like this in insolubles, just as ⟨here⟩:

Coriscus is known by you, Coriscus is approaching,
therefore the one who is approaching is
known by you,

for the term ‘approaching’ is taken, or at least should be understood, reduplicatively, and so the supposition of the extreme varies.”³⁶

Segrave recognises that to diagnose a fallacy or paralogism one needs not only to show that the reasoning involved is invalid; one must also show why it appears to be valid and so tempts people to commit the fallacy. Insolubles are so called, he says, not because it is impossible to solve them, but because solving them is difficult. Once again, he is here in agreement with Bradwardine.³⁷ But he goes on to claim that insolubles are particularly difficult to solve since “having filled in the

³⁵Walter Segrave, §5.10: “*Ultimo sic: si tales paralogismi solvendi essent secundum accidens, cum non sit verisimile tales latuisse Aristotelem, ergo solvisset tales paralogismos secundum accidens ubi ergo solvit illos.*”

³⁶Walter Segrave, §ad 5.10: “*Ad ultimum dico quod Aristoteles ubi solvit paralogismos secundum accidens docet huiusmodi paralogismos solvere, quia isti peccant secundum eundem defectum, sicut prius probatum est. Variatur enim semper in insolubilibus suppositio termini medii vel extremi; et hoc est facere accidens. Unde tales paralogismi sunt similes insolubilibus ubi medio existente hoc aliquid non coniunguntur extrema. Sic enim arguitur in insolubilibus ut: Coriscus cognoscitur a te, Coriscus est veniens, ergo veniens cognoscitur a te, accipitur enim iste terminus: veniens, vel saltem intelligi debet cum reduplicatione, et ita variatur suppositio extremi.*”

³⁷Thomas Bradwardine 2010, §2.1.

middles from which they derive their evidential force, they seem to differ in no way from good syllogisms”:

“For they have ⟨the same⟩ syntactic arrangement both in mood and figure, e.g.,

No falsehood is said by Socrates, this is a falsehood, so this is not said by Socrates.

Therefore, since they have the greatest causes of appearing ⟨to be good syllogisms⟩, which are just the same as those of a good syllogism, for this reason they are the most difficult to solve. Hence they are deservedly called insolubles *par excellence* because of their outstanding argumentative strength.”³⁸

He explains:

“⟨Insolubles⟩ commit the fallacy of accident because by arguing like this:

This is said by Socrates and this is a falsehood, so a falsehood is said by Socrates,

the term ‘falsehood’ supposits in the minor premise for something it does not supposit for in the conclusion. Similarly, in arguing like this:

No falsehood is said by Socrates, this is a falsehood, so this is not said by Socrates,

there is a variation in the middle term because the term ‘falsehood’ supposits for one thing in the major premise and another in the minor, according to those advocating this ⟨solution⟩. And thus it is clear that they have to solve these kinds of paralogisms according to the fallacy of accident, namely, from a variation of the middle term or of an extreme term.”³⁹

³⁸Walter Segrave, §1.1: “*Expletis enim mediis a quibus capiunt evidentiam, a bonis sillogismis nullatenus differre videntur. Habent enim secundum vocem dispositionem tam modi quam figure, ut hic: Nullum falsum dicitur a sorte, hoc est falsum, ergo hoc non dicitur a sorte. Tales igitur, quia causas apparentie habent maximas quoniam easdem quas et boni sillogismi, ideo ad solvendum sunt difficillimi. Merito ergo anthonomastice pro earum maxima evidencia insolubilia nuncupantur.*”

³⁹Walter Segrave, §3.4: “*⟨Insolubilia⟩ peccant enim secundum accidens quia sic arguendo: Hoc dicitur a sorte et hoc est falsum, ergo falsum dicitur a sorte, iste terminus falsum pro aliquo supponit in minori pro quo non supponit in conclusione. Similiter sic arguendo: Nullum falsum dicitur a sorte, hoc est falsum, ergo hoc non dicitur a sorte, variatur medium quia pro aliquo supponit iste terminus falsum in maiori et pro alio in minori, et hoc secundum sic dicentes. Et ita patet quod isti habent*

Segrave supports this diagnosis with a brief discussion of supposition theory. Terms only have supposition in the context of a proposition, and (except in material supposition) supposit for what they signify—but often not for all their significates. For example, in

A rational animal is a man

‘animal’ supposits only for men, not for all animals, because its range of supposition is restricted by adjoining the expression ‘rational’. Indeed,

“The extremes of a proposition take supposition from such a coupling. To supposit for its supposits is to signify them to be the extremes of that union in reality which the copula signifies. They do this sometimes conjunctively, sometimes disjunctively, insofar as they receive a different mode of suppositing from what is adjoined (to them).”⁴⁰

The ground has now been laid for Segrave to solve the insolubles by the fallacy of accident. He illustrates his solution in part by responding to Bradwardine’s extensive arguments against restrictivism.

4. KILVINGTON’S SOPHISM 48

Two of the manuscripts of Bradwardine’s *Insolubilia* include an extra chapter, marked ‘*Capitulum incidens*’ in the Cracow manuscript. This incidental chapter opens as follows:

“Besides the insolubles presented in the fourth chapter, which the solution of the restrictivists did not solve, one insoluble was found which is forever incapable of solution in this way. For let *A* be (one of)

D: God exists

and

C: Nothing granted by Socrates is known to you,

where you do not know whether *A* is *D* or *C*; and take

B: *A* is known to you,

solvere huiusmodi paralogismos secundum fallaciam accidentis, scilicet ex variatione mediū vel extremi.”

⁴⁰Walter Segrave, §4.4: “*Extrema igitur propositionis suppositionem capiunt a tali copulatione. Supponere pro suis suppositis est significare illa esse extrema illius unionis ex parte rei quam significat copula. Et hoc faciunt aliquando copulative aliquando disiunctive, secundum quod diversum modum supponendi habent ex adiunctis.*”

which is only granted by Socrates.”⁴¹

This insoluble is found in Richard Kilvington’s *Sophismata* as his 48th and final sophism. Its presence in the incidental chapter to Bradwardine’s *Insolubles* suggests that Kilvington’s *Sophismata* was written after Bradwardine’s treatise (as is consistent with other evidence, which suggests a date in the mid-1320s for Kilvington’s treatise) and that Bradwardine (or a follower of his) added the extra chapter partly in response to Kilvington. It is intriguing, then, to find almost the same sophism, again treated as an insoluble, in Segrave’s *Insolubles*:⁴²

“A paralogism may be made in another way like this: let *A* be one of these:
 God exists,
 and
 ⟨*C*⟩ Nothing proposed to Socrates is known by you,
 where it is unknown to you which of these is *A*. And let the proposition
 ⟨*B*⟩ *A* is known by you,
 be proposed to Socrates ⟨and nothing else⟩ and ask about
 ⟨*B*⟩ *A* is known by you
 whether it is true or false.”⁴³

Segrave has ‘proposed to Socrates’ where Kilvington and Bradwardine have ‘granted by Socrates’ (adding that only *B* is granted by Socrates), but otherwise they pose the same puzzle, showing that *B* cannot be denied, doubted or granted, on pain of contradiction. (Kilvington follows the order not doubted, not granted and not denied, and Bradwardine, not granted, not doubted and not denied.)

First Segrave shows that *B* cannot be denied:

⁴¹Thomas Bradwardine 2010, ¶¶A.0-A.1.1: “*preter insolubilia quarto capitulo posita, que solutio restringentium non dissolvit, inventum fuit unum insolubile per istam in perpetuum non dissolvendum. Sit enim A: deus est, que sit [D], et nullum concessum a Sorte scitur a te, que sit C, et nescias an a sit [D] vel C, et sit [B] ista: a scitur a te, que sola conceditur a Sorte.*” The labels *B* and *D* have been interchanged to accord with Segrave’s and Kilvington’s texts.

⁴²It is also found in the chapters on ‘De Scire’ appended to the section on ‘Insolubles’ in Part I (*Summa Logicae*) of John Dumbleton’s *Summa Logicae et Philosophia Naturalis*, composed in Oxford around 1340..

⁴³Walter Segrave, §6.15: “*Aliter paralogizatur sic: sit A altera istarum: Deus est, et ⟨C⟩ Nullum propositum sorti est scitum a te, et lateat te que illarum sit A. Et proponatur ista sorti ⟨et nulla alia⟩: ⟨B⟩ A est scitum a te, et queratur de ista: ⟨B⟩ A est scitum a te, utrum sit vera vel falsa.*”

“ $\langle B \rangle$ cannot be denied because \langle the inference \rangle :
 A is ‘God exists’, therefore A is known by you,
 is valid. The premise is uncertain, therefore the conclu-
 sion should not be denied.”⁴⁴

This form of inference, occurring first (as far as I know) in Kilvington’s discussion of his sophism 45, was christened Kilvington’s “disputational meta-argument” by Kretzmann in his commentary on Kilvington.⁴⁵ In general, it says that if an inference is known to be valid and one expresses doubt or uncertainty about (one of) the premises (granting any others), then one cannot deny the conclusion. For if the argument is valid and the conclusion is false, at least one of the premises must be false. So for consistency one must deny at least one of the premises, as not doing so is incompatible with denying the conclusion—revising one’s expression of uncertainty about the premise, rather than contradicting the denial of the conclusion. In the present case, if A were ‘God exists’, it would be known by you and so the conclusion, that is, B , could not be denied. If B were denied, it would follow that A was not ‘God exists’, and of that you are uncertain, by hypothesis. Nor can B be doubted, observes Segrave:

“because this is valid:
 This, proposed to Socrates, is uncertain for you,
 therefore this is not known by you,
 and moreover this is valid:
 This, proposed to Socrates, is not known by
 you, therefore nothing proposed to Socrates is
 known by you.

The \langle validity of the latter \rangle inference is clear because only $\langle B \rangle$ is proposed to Socrates; and the premise is known by you, therefore the conclusion \langle is known by you \rangle . And then one argues like this: ‘Nothing proposed to Socrates is known by you’ (sc. $\langle C \rangle$) is known by you, and ‘God exists’ is known by you, therefore each of them is known by you; A is one of these, therefore A is known by you.”⁴⁶

⁴⁴Walter Segrave, §6.15.1: “ $\langle B \rangle$ negari non potest quia sequitur: A est: Deus est, ergo A est scitum a te. Antecedens est dubium, ergo consequens non est negandum.”

⁴⁵Kretzmann and Kretzmann 1990a, 316.

⁴⁶Walter Segrave, §6.15.2: “Nec est hoc $\langle B \rangle$ dubitandum quia sequitur: Hoc propositum sorti est tibi dubium, ergo hoc non est scitum a te, et sequitur ultra: Hoc propositum sorti non est scitum a te, ergo nullum propositum sorti est scitum a te. Consequentia patet quia tantum hec $\langle B \rangle$ est proposita sorti; et antecedens est scitum a te, ergo consequens. Et tunc arguitur sic: Hec est scita a te: $\langle C \rangle$ Nullum

It seems, therefore, that one must grant B , since one cannot deny or doubt it. If so, Segrave says, let C , that is, 'Nothing proposed to Socrates is known by you', be proposed. Then he proceeds to show that C cannot be denied, doubted or granted. First:

" $\langle C \rangle$ cannot be denied because this is valid:

This is false, and this is A , therefore A is false,
and furthermore:

Therefore A is not known by you
 \langle follows \rangle . The inference is valid and the premise ' \langle This is
 $A \rangle$ ' is uncertain, so the conclusion should not be denied;
yet the conclusion is false because you have granted that
 A is known by you."⁴⁷

Once again, the reasoning appeals to Kilvington's disputational meta-argument, but we denied the conclusion when we granted B .

"Similarly, $\langle C \rangle$ cannot be doubted because this is valid:

This is uncertain for you and this is A , therefore
 A is uncertain for you.

The conclusion is false because A is known by you."⁴⁸

Suppose 'this' refers to C . Given the correction of Segrave's description of the scenario to specify that only B is proposed to Socrates, C is equivalent to ' B is not known by you' and so to 'that A is known by you is not known by you', which is true since you do not know whether A is C or not. So the first premise is known to be true, the second premise is uncertain, so the conclusion cannot be denied, by Kilvington's meta-argument, but it is false and so must be denied. Thus we have a contradiction. So C cannot be doubted.

Since, assuming B is granted, C cannot be denied or doubted, it must be granted. Now consider this inference (Bradwardine calls it E):

"Nothing proposed to Socrates is known by you, B is proposed to Socrates, therefore B is not known by you."⁴⁹

propositum sorti est scitum a te, et: Deus est est scita a te, ergo utrumque istarum est scitum a te; A est alterum istarum, ergo A est scitum a te."

⁴⁷Walter Segrave, §6.15.3.1: "*Hoc negari non potest quia sequitur: Hec est falsa, et hec est A, ergo A est falsum, et ultra: Ergo A non est scitum a te. Consequentia est bona et antecedens est dubium, ergo consequens non est negandum; tamen consequens est falsum quia concessisti quod A est scitum a te.*"

⁴⁸Walter Segrave, §6.15.3.2: "*Similiter nec dubitari potest $\langle C \rangle$ quia sequitur: Hec est tibi dubia et hec est A, ergo A est tibi dubium. Consequens est falsum quia A est scitum a te.*"

⁴⁹Walter Segrave, §6.15.3.3: "*Nullum propositum sorti est scitum a te, B est propositum sorti, ergo B non est scitum a te (sit B ista: A est scitum a te).*"

E seems clearly valid. The conclusion is false, Segrave says, because you have granted B . The minor premise is true by hypothesis and the major premise has been granted. Contradiction. So we cannot grant both B and C , but if we grant B we must grant C , so B cannot be granted. But we have shown that it cannot be denied or doubted, either. Contradiction. This is the sophism.

Kilvington, Bradwardine and Segrave all make heavy weather of presenting the paradox. But it can perhaps be put more simply like this: as we noted, C is equivalent to ‘You do not know if you know A ’. You might think that C is true, since if C is false, you know that you know A , so since you don’t know whether A is ‘God exists’ (that is, D) or C , C must also be true, so by *consequentia mirabilis*, C is true. Since you have proved that C is true, you know C , and so you don’t know B (the only thing proposed to Socrates), that is, you don’t know that you know A . But if A is D , you do know A . Hence A must be C and you don’t know C . Contradiction.

All three authors now apply their preferred solutions to the sophism. Kilvington’s idea is that no insoluble is unconditionally true or false, but each is true in a certain respect (or conditionally), appealing like Burley and Bradwardine to the fallacy of the conditional and the unconditional. For if A is D , A is known unconditionally; but if A is C , C is only true conditionally and equally false conditionally—that is, it circles indefinitely: if C were true unconditionally it would be false unconditionally, and vice versa. But nothing can be both true and false unconditionally, only conditionally.

Bradwardine’s solution appeals to his second postulate, (P2), and draws on a further conclusion proved in ch.9:

“If any proposition only signifies itself to be unknown to someone, or if in addition it only signifies some thing or things known to him, then it signifies that it is unknown to him that it is unknown to him.”⁵⁰

Now if A is D , B is true; but if A is C , B signifies itself to be unknown to you, since it signifies that you know C . But C signifies that you don’t know B , so it follows that B signifies that you don’t know B . So B will be a case of the Knower Paradox,⁵¹ and so by the result from ch.9, B signifies that you don’t know that you don’t know B . But you do know

⁵⁰Thomas Bradwardine 2010, ¶9.3: “*Conclusio est ista: si aliqua propositio tantum significat se ab aliquo nesciri, vel si cum hoc tantum significet scitum vel scita ab illo, significat nesciri ab illo ipsam ab eodem nesciri.*”

⁵¹See, e.g., Sorensen 2018, §5.1.

that you don't know B (because you don't know whether A is D or C). So if A is C , B is false:

“Hence $[B]$ should be doubted, because if A is $[D]$, $[B]$ is true, and if A is C , $[B]$ is false, because it signifies itself to be unknown to you and consequently it signifies that it is unknown to you that $[B]$ is unknown to you, as is clear in chapter 9.”⁵²

The main challenge, however, is to Segrave, to show that restrictivism can solve the paralogism, given that Bradwardine claims it cannot. First, Segrave contests the validity of inference E :

“So I question inference $\langle E \rangle$ because if A is
 $\langle C \rangle$ Nothing proposed to Socrates is known by
 you,
 inference $\langle E \rangle$ is not valid; \langle while \rangle if $\langle A \rangle$ is
 God exists,
 inference $\langle E \rangle$ is valid.”⁵³

What is the problem with E that renders it invalid if A is C ? Segrave explains:

“Similarly, I question the inference \langle drawn \rangle from the opposite \langle of E 's conclusion \rangle , namely
 $\langle E' \rangle$ B is known by you and B is proposed
 to Socrates, therefore something proposed to
 Socrates is known by you,⁵⁴
 because if A is
 $\langle C \rangle$ Nothing proposed to Socrates is known by
 you,
 then in
 Something proposed to Socrates is known by
 you

⁵²Thomas Bradwardine 2010, ¶ad A.1: “[B] enim debet dubitari, quia, si A sit $[D]$, $[B]$ est verum, et si A sit C , $[B]$ est falsum, quia significat se nesciri a te, et per consequens significat nesciri a te $[B]$ nesciri a te, ut patet capitulo nono.”

⁵³Walter Segrave, §ad 6.15: “Ideo dubito istam consequentiam $\langle E \rangle$, quia si A sit hec: $\langle C \rangle$ Nullum propositum sorti est scitum a te, consequentia $\langle E \rangle$ non valet; si sit Deus est, consequentia $\langle E \rangle$ bona est.”

⁵⁴ $\langle E \rangle$ and $\langle E' \rangle$ are equivalent by the rule that “when there are many premises . . . it is necessary that from the opposite of the consequent with one premise the opposite of the other premise follows” (William of Ockham 1974, III-3 ch.38: “. . . quando antecedens continet plures propositiones . . . oportet quod ex opposito consequentis cum una propositionum sequatur oppositum alterius propositionis”).

the extremes do not supposit for B .”⁵⁵

For if A is C then the extremes of

Something proposed to Socrates is known by you

(the contradictory of C), cannot supposit for B ,

“because if they supposed for B , $\langle B \rangle$ would be known; since B implies the contradictory of

Something proposed to Socrates is known by you,

this would signify that its contradictory [sc. C] is true and so it would signify itself to be true of its true contradictory $\langle C \rangle$, which cannot \langle be the case \rangle . And so it is clear that also in

$\langle C \rangle$ Nothing proposed to Socrates is known by you

the subject does not supposit for B , since A would signify this:

Nothing proposed to Socrates is known by you.

It is clear from what has been said how one should respond to these sophisms.”⁵⁶

Segrave’s point is that, if A were C , there would be variation in the conclusion of E' (and so in the middle term of E , namely, ‘proposed to Socrates’) on pain of contradiction (that is, of the sophism springing up again). The restrictivist response is that the subject of E ’s major premise does not supposit for B while the predicate of its minor premise does, so E commits a fallacy of accident. The major premise is still true (being an E-proposition with empty subject—nothing else is proposed to Socrates) but E is valid only if A is D , not if A is C , and so the undoubted truth of the premises does not warrant the conclusion, and contradiction is avoided.

⁵⁵Walter Segrave, §ad 6.15: “*Et similiter dubito consequentiam ex opposito, hanc videlicet: B est scitum a te et B est propositum sorti, ergo aliquod propositum sorti est scitum a te, quia si A sit ista: Nullum propositum sorti est scitum a te, tunc in ista: Aliquod propositum sorti est scitum a te, extrema non supponunt pro B.*”

⁵⁶Walter Segrave, §ad 6.15: “*... quia si supponerent pro B esset scitum, cum B antecedit ad contradictorium huius: aliquod propositum sorti est scitum a te, ista significaret suum contradictorium esse verum et ita significaret se esse veram pro suo contradictorio vero quod non potest. Et ita patet quod similiter in ista: Nullum propositum sorti est scitum a te subiectum non supponit pro B, cum A significaret istam: Nullum propositum sorti est scitum a te. Ex illo dicto patet quomodo sit respondendum ad talia sophismata.*”

5. CONCLUSION

Walter de Segrave's *Insolubles* was written in direct response to Bradwardine's treatise. In it, Walter defends restrictivism against Bradwardine's sustained attack on Burley's qualified restrictivism. In doing so, Walter in fact endorses many of Bradwardine's assumptions, including his postulation of hidden additional meanings or signification, and so makes use of Bradwardine's notorious closure postulate, that propositions signify whatever follows from what they signify. Segrave takes over from Burley, citing Aristotle and Averroes in support, the idea that the copula signifies the unity of the extremes and so each proposition signifies that it itself is true. Consequently, Segrave argues, the extremes can only supposit for things for which it is consistent that the proposition is true. Insolubles break this restriction, and so their extremes cannot supposit for everything they signify. Hence insolubles commit a fallacy of accident, in which there is variation of the supposition of the middle term, or of the extremes.

MANUSCRIPTS USED

Walter Segrave, *Insolubilia*: Erfurt, Bibliotheca Amploniana, Octavo 76, ff. 21vb-34rb

Walter Segrave, *Insolubilia*: Erfurt, Bibliotheca Amploniana, Quarto 276, ff. 159ra-162ra

Walter Segrave, *Insolubilia*: Oxford, Bodleian Library, can. misc. 219, ff. 1ra-3va (acephalic)

REFERENCES

- Averroes (1562). *Aristotelis Metaphysicorum libri cum Averrois Cordubensis in eosdem Commentariis*. Lucas Antonius Iuncta, Venice.
- Burley, W. (1955). *De Puritate Artis Logicae Tractatus Longior, with a revised edition of the Tractatus Brevior*. The Franciscan Institute, St Bonaventure.
- Burley, W. (2000). *On the Purity of the Art of Logic*. Yale UP, New Haven and London. English translation by P.V. Spade.
- Conti, A. (2016). Walter Burley. In Zalta, E. N., editor, *The Stanford Encyclopedia of Philosophy*. Metaphysics Research Lab, Stanford University, summer 2016 edition.
- Emden, A. (1959). *A Biographical Register of the University of Oxford to A.D. 1500*, volume 3. Clarendon Press, Oxford.

- Gelber, H. (1987). The fallacy of accident and the dictum de omni: late medieval controversy over a reciprocal pair. *Vivarium*, 25:110–45.
- John Buridan (2001). *Summulae de Dialectica*. Yale U.P., New Haven. English translation by Gyula Klima.
- Klima, G. (2001). Existence and reference in medieval logic. In Hieke, A. and Morscher, E., editors, *New Essays in Free Logic*, pages 197–226. Kluwer, Dordrecht.
- Kretzmann, N. and Kretzmann, B., editors (1990a). *The Sophismata of Richard Kilvington: Introduction, Translation and Commentary*. Cambridge UP, Cambridge.
- Kretzmann, N. and Kretzmann, B., editors (1990b). *The Sophismata of Richard Kilvington: Text Edition*. Auctores Britannici Medii Aevi XII. Oxford UP, Oxford. For the British Academy.
- Ottman, J. and Wood, R. (1999). Walter of Burley: his life and works. *Vivarium*, 37:1–23.
- Ponzalli, R., editor (1971). *Averrois in librum V (Δ) Metaphysicorum Aristotelis Commentarius*. Edizione Francke, Bern.
- Roure, M.-L. (1970). La problématique des propositions insolubles au xiii^e siècle et au début du xiv^e, suivie de l'édition des traités de W. Shyreswood, W. Burleigh et Th. Bradwardine. *Archives d'Histoire Doctrinale et Littéraire du Moyen Age*, 37:205–326.
- Segrave, C. W. (1936). *The Segrave Family 1066-1935*. Novello, London.
- Sorensen, R. (2018). Epistemic paradoxes. In Zalta, E. N., editor, *The Stanford Encyclopedia of Philosophy*. Metaphysics Research Lab, Stanford University, summer 2018 edition.
- Spade, P. V. and Read, S. (2021). Insolubles. In Zalta, E. N., editor, *The Stanford Encyclopedia of Philosophy*. Metaphysics Research Lab, Stanford University, winter 2021 edition.
- Thomas Bradwardine (2010). *Insolubilia*. Peeters, Leuven. Edited with English translation by Stephen Read.
- Walter Burley (1970). Insolubilia. In Roure (1970), pages 262–84.
- Walter Segrave. *Insolubilia*. Edited with an English translation by Barbara Bartocci and Stephen Read, in preparation.
- William of Ockham (1974). *Summa Logicae*. Franciscan Institute Publications, St Bonaventure. Edited by P. Boehner et al.
- William of Ockham (1979). *Expositio super libros Elenchorum*. Opera Philosophica vol. 3. The Franciscan Institute, St Bonaventure. ed. Francesco Del Punta.