

I 5 **Obligationes**

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I 5.1 INTRODUCTION

Obligationes are a special, regimented kind of oral disputation involving two participants, known as opponent and respondent. Obligational disputations were an important topic for Latin medieval logicians in the thirteenth and especially fourteenth centuries (and beyond); indeed, most major fourteenth-century authors have written on *obligationes*. And yet, perhaps due to their highly regimented nature, modern interpreters have often described *obligationes* as ‘obscure’ and ‘puzzling’ (Stump 1982; Spade 2000). In what follows, we argue that there is nothing particularly mysterious about *obligationes* once they are placed in the broader context of an intellectual culture where disputations (of different kinds) occupied a prominent position. In effect, the inherent multi-agent character of *obligationes* must be taken seriously if one is to make sense of these theories.

In its best-known version, *positio*, opponent puts forward a first statement, the *positum*, which respondent must accept unless it is self-contradictory, thereby becoming ‘obligated’ towards it. (Typically, a *positum* is a false proposition.) Opponent then continues to put forward statements, the *proposita*, which respondent must concede, deny or doubt on the basis of specific rules. There were different versions of these rules, but according to the ‘standard’ approach, respondent ought to concede everything that follows from what he has granted so far together with the contradictories of what he has denied so far; and deny everything that is logically incompatible (inconsistent) with his previous actions and the commitments they generate. In the absence of such inferential relations with previous commitments, he should respond to a proposition on the basis of his own epistemic status towards it: concede it if he knows it to be true, deny it if he knows it to be false, and doubt those whose truth

value he does not know (e.g. 'The pope is sitting right now'). So rather than tracking truth, responses were above all guided by inferential, logical relations, since these relations took precedence over the truth values of propositions.

Obligationes are essentially adversarial exchanges, as participants have opposite goals: opponent seeks to force respondent to concede something contradictory, while respondent seeks to avoid granting something contradictory. The exchange ends when respondent fails to maintain consistency, or else when opponent says 'time is up', after respondent has been able to maintain consistency long enough.

In this chapter, we begin with a systematic overview of the main sub-genres of *obligationes* and their logical properties. In the second part, we present a historical overview of the development of *obligationes*. In the third and final part, we discuss the 'point' of *obligationes*, both according to the medieval authors themselves and according to modern commentators.

15.2 KINDS OF *OBLIGATIONES*

In the thirteenth century, most authors distinguished six different species of *obligationes*: *positio*, *depositio*, *dubitatio*, *impositio/institutio*, *petitio*, and *rei veritas/sit verum*. Later authors, from the middle of the fourteenth century on, tended to reduce the six species to three: *positio*, *depositio*, and *impositio*. However, in terms of the types of disputation that they give rise to, it makes more sense to group *positio*, *depositio*, and *dubitatio* together on the one hand, and *petitio*, *impositio/institutio*, and *rei veritas/sit verum* on the other. Whether they identified six or only three species, *positio* is the main type, both in terms of historical development and in terms of space devoted to it in obligatory treatises.

15.2.1 *Positio* (and *Depositio*)

The basic idea of a *positio* disputation is that a thesis, the *positum*, is accepted by the respondent in order to see what follows from it.

Typically, a *positum* will be a false proposition, as pointed out in the Emmeran treatise on false *positio*. This makes sense, as a true *positum* would not constitute much of a test for respondent's inferential abilities; with a true *positum*, respondent can simply respond on the basis of the truth values of the proposed propositions, and consistency will be maintained (as presumably, the actual world offers a 'model' verifying all these true propositions). True disputational skills are deployed only when assuming something one does not believe to be the case, and then being able to maintain consistency and determine what follows from it. In order to highlight the falsity of the *positum*, many authors also introduced the notion of a *casus*, i.e. an assumption external to the disputation. (Notice that '*casus*' is a juridical term – Pironet 1995.) A typical *casus* would be that Socrates is white, and the accompanying *positum* would be 'Socrates is black'.

A presentation of the 'standard' theory of *obligationes* can be found in Burley's treatise (Green 1963; Burley 1988), and this text provides the basis for the present discussion. A *positio* with a false *positum* may, but need not, start with the postulation of a *casus*. Opponent then puts forward a *positum*, which respondent must accept unless it is self-contradictory.¹ One way to think about such disputations is in terms of the *discursive commitments* that respondent undertakes when he grants, denies, or doubts the propositions subsequently put forward by opponent, the *proposita*. At each reply, a new set corresponding to the commitments of respondent up to that point is formed, and consists of the set of propositions previously granted and the contradictories of propositions previously denied. Let us refer to this set as the 'commitment set at stage *n*'.

One of the key concepts in the obligational framework is the notion of a proposition being *pertinent* to the previous commitments undertaken by respondent. A proposition proposed is pertinent at

¹ Thus, identifying self-contradictory, paradoxical *posita* was an important aspect in these obligational contexts, hence the connection with the *insolubilia* literature spelled out in Martin 2001. See also the discussion below on which impossible *posita* could be accepted.

stage n iff (if and only if): either it follows logically from the commitment set at stage n (*pertinens sequens*); or it is inconsistent with this set (*pertinens repugnans*).

On the basis of the notions of commitment set and pertinence, the rules of the game can be formulated as follows:

Respondent ought to **concede** a *propositum* iff: either it is pertinent and follows from the commitment set formed so far; or it is impertinent and known to be true.

Respondent ought to **deny** a *propositum* iff: either it is pertinent and inconsistent with the commitment set formed so far; or it is impertinent and known to be false.

Respondent ought to **doubt** a *propositum* iff: it is impertinent and it is not known whether it is true or it is false.

The goal for respondent is to avoid granting contradictory propositions, thus destroying the consistency of his discursive commitments, while the goal for opponent is to force respondent to concede something impossible. The disputation ends when respondent grants a contradiction, or else when opponent says 'Time is up', after respondent has been able to maintain consistency for long enough.

Perhaps the best way to get a feel for what obligational disputations consist in is to take a look at an example. Table 15.1 gives one from Walter Burley's treatise (1988, 3.105, p. 403 in the English translation).

The disputation on Table 15.1 is presented, i.e. a situation in which respondent is forced by the rules of the game themselves to grant something impossible. Burley's solution is that the third proposition, 'Only this is the first proposition proposed' should be denied as inconsistent (*repugnans*) with the previously granted ones. To be sure, this is not a very convincing solution, but the sophism itself contains some of the elements that were exploited to make such disputations more difficult, such as references to previous or posterior moves in the game, and postulation of sameness of truth values. Another 'trick' was to formulate propositions containing concepts belonging to the

Table 15.1 *Example of a disputation – positio*

Proposition	Correct response
Positum: ‘That you are a donkey is the same [in truth value] as the first proposition to be proposed [other than <i>positum</i>].’	Admit: it is the <i>positum</i> , and it is not self-contradictory.
‘God exists.’ [First proposition proposed]	Concede: impertinent, but true (in fact, necessary).
‘Only this is the first proposition proposed.’ [Indicating ‘God exists’]	Concede: impertinent, but true.
‘You are a donkey.’	Concede: it follows from the <i>positum</i> together with a proposition correctly granted.

meta-level of obligational theories, such as ‘is to be granted’, ‘is to be denied’, etc. (For example, ‘That Socrates is white must not be granted’ presented as the *positum*.)

The game has a number of interesting logical and game-theoretical properties²:

Respondent can always ‘win’. At least structurally, the rules of the game ensure that, if respondent performs adequately, he can always maintain consistency. This follows from the observation that any (non-maximal) consistent set of propositions can always be expanded with one of the elements of a pair of contradictories. In obligational terms, this means that, if the initial set is consistent (which corresponds to the requirement that the *positum* must not be self-contradictory), consistency can always be maintained by either granting or denying a given *propositum*, and the rules of the game ensure this.

But the game remains hard to play. Nevertheless, participating in an obligational disputation remains a nontrivial exercise. In practice,

² For a more extensive discussion of these properties, see Dutilh Novaes 2007, 3.3.

respondent has to update his commitment set constantly, and keep track of new inferential relations that may arise. Moreover, due to semantic intricacies of the propositions proposed – which include self-reference, reference to other propositions in the disputation (as in the example above), reference to properties of the obligational framework itself, among others – a respondent often finds himself in paradoxical situations. Many of the *sophismata* discussed in the obligational texts deal precisely with these ‘difficult’ cases.

The game is inherently dynamic. There are different senses in which *obligationes* can be said to be dynamic. One of them is the dependence on the order in which the *proposita* are proposed to determine the correct answer to a given proposition (in the *responsio antiqua*, that is – see below). Indeed, Burley lists this as one of the useful rules of the art: ‘One must pay special attention to the order’ (Burley 1988, 385). Another (related) dynamic feature is the fact that each move by respondent entails an *update* in his discursive commitments.

More generally, *positio* is simply a highly regimented account of what it means to maintain a thesis coherently in a dialogical situation: recognizing what follows from it, and accepting new commitments only insofar as they do not clash with what has been previously granted/denied (especially, but not exclusively, the initial thesis).

A *positio* disputation can also be initiated with an impossible proposition, i.e. one that is not only contingently false but necessarily so. One of the earliest known treatises on *obligationes*, the anonymous Emmeran treatise on impossible *positio* (edited in De Rijk 1974, English translation in Yrjönsuuri 2001), already spells out in quite some detail the general idea. Impossible *positio* continued to be discussed by later authors such as Ockham and Burley.

Impossible *positio* is much like false *positio*, but it requires some adaptations. For example, the logical rule according to which from the impossible anything follows cannot be enforced in the case of impossible *positio*, otherwise the whole enterprise would become trivial. So in impossible *positio*, a stricter notion of consequence is required, and the one proposed by the Emmeran treatise is based on

conceptual relations of containment between consequent and antecedent. Moreover, discussions on impossible *positio* also point out that not any arbitrary impossibility is acceptable as a *positum*. In particular, the Emmeran treatise says that an impossible *positum* that entails contradictory propositions must not be accepted.

Despite its apparent strangeness, medieval authors correctly perceived that impossible *posita* could serve as a powerful tool for logical analysis, and it is not surprising that the language of *positio impossibilis* often appears in connection with theological questions (Knuuttila 1997; Yrjönsuuri 2000).

As for *depositio*, which is sometimes presented by medieval authors as its own specific kind of *obligatio*, it is in fact structurally analogous to *positio*. In *depositio*, respondent is expected to reply as if he rejects the first proposition, the *depositum*. Given the underlying assumptions of the framework, this is effectively equivalent to a *positio* with the contradictory of the *depositum* as the starting point, hence the structural analogy.

15.2.2 Dubitatio

In the genre *dubitatio*, opponent's primary obligation is to hold the initial proposition – the *dubitatum* – as doubtful. This means that nothing he concedes should logically imply it, and he should not deny anything that logically follows from it. The most extensive discussions of *dubitatio* occur in thirteenth-century texts such as *Obligaciones Parisienses*, Nicholas of Paris' *Obligaciones*, and the *Obligaciones* attributed to William of Sherwood. *Obligaciones Parisienses* is interesting because it is the only text which considers the question of whether *dubitatio* should be admitted as a legitimate distinct species of *obligatio*, given that the primary action of respondent is doubt, which does not fit into the bi-partite structure of disputation outlined by Aristotle (Uckelman et al. forthcoming, §3).

Of the early treatises, the clearest presentation of the rules for *dubitatio* occurs in Nicholas of Paris (Braakhuis 1998). As with *positio*, which starts with false propositions, in *dubitatio* the *dubitatum*

is typically a sentence whose value is known, either known to be true or known to be false. Nicholas gives seven rules for *dubitatio* (Braakhuis 1998, 72–76), many of which are structurally similar to the standard rules for *positio* and *depositio*. This results in the following obligations for the respondent:

The respondent ought to **doubt** a *propositum* iff: it is identical to the *dubitatum*, it is logically equivalent to the *dubitatum*, it is contradictory to the *dubitatum*, or it is impertinent and its truth value is not known.

The respondent ought to **concede** a *propositum* iff: it is impertinent and known to be true, or it is equivalent to something already granted.

The respondent ought to **deny** a *propositum* iff: it is impertinent and known to be false, or it is equivalent to something already denied.

Nicholas' *dubitatio* has similar formal properties to *positio*. Provided that the *dubitatum* is neither a contradiction nor a tautology, it can be proved that respondent can win the disputation playing by Nicholas' rules for *dubitatio*: that is, he will never be forced either to concede or to deny the *dubitatum* (Uckelman 2011b, theorem 24).

We give an example in Table 15.2 of *dubitatio*, adapted from (Braakhuis 1998, 223–224), to give a sense of how these rules work. Because this example is intended to be one where respondent makes a mistake, Nicholas does not provide justifications for the responses.

In this example, respondent has made an error in the fourth step. He has responded correctly in the second and third rounds, since the second proposition is identical to the *dubitatum* and the third is equivalent to it, and, if his response to the fourth proposition were correct, he would have been correct in conceding the fifth, since 'black' and 'white' are exclusive, so Socrates' being white and his being black are inconsistent. However, respondent responds incorrectly to the fourth statement when he concedes that Socrates is black; for from the fact that it is doubtful whether Socrates is white

Table 15.2 *Example of a disputation – dubitatio*

Proposition	Response
1. 'Socrates is white'	Accepted: the dubitatum
2. 'Socrates is white'	Doubt
3. 'Socrates is pale/fair'	Doubt
4. 'Socrates is black'	Concede
5. 'It is false that Socrates is white'	Concede

it does not follow that Socrates is black, and further, by conceding that Socrates is black, the respondent is later forced to deny the *dubitatum*, thus violating his primary obligation.

This example may seem simple and trivial; and in fact, many modern commentators have discounted *dubitatio* as a trivial variant of *positio*, not worth further investigation in its own right (see, e.g., Spade and Yrjönsuuri 2014). In this, they follow the views of many medieval authors, such as Paul of Venice, Roger Swyneshed (not to be confused with his younger contemporary Richard Swyneshed), Richard Lavenham, John of Wesel, Richard Brinkley, and John of Holland, all of whom either reduce *dubitatio* to one of the other variants, or do not mention it at all. However, this view overlooks two of the interesting properties of *dubitatio* which set it apart from *positio*: the necessity of higher-order reasoning, and the indeterminacy of the rules.

The rules require reasoning about knowledge, not just truth.

The addition of the question of knowledge, not just truth value, into the *dubitatum* requires that respondent reason at two different levels. Just as *positio* is only interesting when the *positum* is false or impossible, so *dubitatio* is only interesting when the *dubitatum* is known (whether it is true or false). Thus, in the context of a *dubitatio*, rather than simply acting as if a false proposition is not false, respondent must act as if a known proposition is not known. He

must also distinguish between epistemic value and truth value. It is not the case, as some have argued (Stump 1985), that *dubitatio* involves some type of three-valued reasoning: while there is a tripartite structure to the actions of the respondent, in that some propositions must be doubted, some must be denied, and others must be conceded, these actions should not be thought of as assigning the truth values 'unassigned', 'false', and 'true' to the propositions.

The rules are nondeterministic. When a proposition is not false, there is (since medieval logic is essentially bivalent) only one option, namely, that it is true. However, when a proposition is not known, there are two options: a proposition could be not known because its negation is known, or a proposition could be not known because neither it nor its negation is known. Respondent must choose one of these options when forming his response. This is reflected in the nondeterministic nature of the rules. Burley's rules for *positio* are deterministic: for every *propositum*, if respondent has correctly responded so far, there will be a unique correct action for him to take. This is not the case for *dubitatio*. Above, we stated rules for respondent covering the cases of statements equivalent or contradictory to the *dubitatum*, and impertinent sentences. The case of pertinent (but not equivalent or contradictory) sentences was omitted. For these, Nicholas provides the following rules:

The respondent must **not concede** a proposition iff: the proposition is antecedent to the *dubitatum*. He may, as he chooses, doubt or deny it.

The respondent must **not deny** a proposition iff: the proposition is a consequence of the *dubitatum*. He may, as he chooses, doubt or concede it.

Once this feature of the rules is seen, it is clear that *dubitatio* cannot be reduced to *positio* without losing this indeterminacy (Uckelman 2011b).

15.2.3 *Impositio and Petitio*

Impositio (also called *institutio* or *appellatio*) and *petitio* can be treated together because of the way they differ from *positio*, *depositio*, and *dubitatio*, which is that the obligation by which respondent is bound does not concern how he is to respond to the *obligatum*. In *impositio*, respondent is obliged to redefine certain terms or phrases. For example, *Obligaciones Parisienses* offers the following example of an uncertain *institutio* (uncertain because the new imposition is disjunctive): ‘if the name “Marcus” is fixed to be a name of Socrates or Plato, but you would not know of which’ (De Rijk 1975, 28).

At the end of the fourteenth century, Richard Lavenham provides a more complex example: ‘I impose that in every false proposition in which “a” is put down that it signifies only a man and that in every true proposition in which “a” is put down that it signifies only a donkey, and that in every doubtful proposition in which “a” is put down that it signifies convertibly with this disjunction “man or non man”’ (Spade 1978, §24, 235). Such an *impositio* should not be accepted by respondent; for consider what happens when the proposition ‘Man is a’ is put forward. If the proposition is true, then, it means ‘Man is donkey’, which is impossible; hence, the proposition is false. But if it is false, it means ‘Man is man’, which is true! Thus, if it cannot be true or false, then it must be doubtful. But if it is doubtful, then it means ‘Man is man or not man’, which again is true. This example shows a general characteristic of *impositiones*, namely, their connection to liar-like insolubles.

In *petitio*, opponent petitions respondent to respond in a certain way. Many authors, such as Nicholas of Paris, Marsilius of Inghen, Peter of Mantua, and Paul of Venice, argue that *petitio* can be reduced to *positio*, and few authors treat *petitio* at any length. (One exception is Walter Burley, who reduces *petitio* to *impositio* rather than to *positio*. He argues that *petitio* is distinct from other species [of obligation], because a *petitio* posits the performance of an act that is mentioned in the storable thing [at issue], but the other species

do not require this'; Burley 1988, 373–374.) There is one interesting way in which *petitio* differs from *positio*. Because the game begins with opponent's request, there is a division into relative and absolute *petitiones* which is not present in *positio*. An example of an absolute *petitio* is the following: 'I require you to concede that a man is a donkey'; an example of the second is 'I require you to concede the first thing to be proposed by me'. Such a meta-level distinction cannot be made in *positio*.

15.2.4 Sit verum

The sixth type, *sit verum* or *rei veritas*, is little discussed by later authors, most of whom treat it like *impositio* and *petitio* above, reducing it to a form of *positio*. The phrases literally mean 'let it be true' and 'the truth of things [is]', and functions similarly to the setting up of a *casus*. The most detailed discussions appear in the thirteenth-century texts. Nicholas of Paris' examples of *rei veritates* that cannot be sustained often include epistemic clauses. For examples, he says that

it is customary to say that this cannot be sustained: 'the truth of things (*rei veritas*) is that only Socrates knows that the king is in Paris'. For if it is sustained, then a contradiction follows. For if you know that only Socrates knows that the king is in Paris, you know that Socrates knows nothing except the truth; therefore you know that the king is in Paris is true, and thus you know that the king is in France, therefore not only Socrates knows this. (Braakhuis 1998, 233)

This example shows an interesting resemblance to Fitch's and Moore's paradoxes.

Another discussion worth noting occurs in *Obligationes Parisienses*, where *rei veritas* is compared with *positio* as follows (De Rijk 1975, 28):

And *rei veritas* differs from *positio* because in the case of *rei veritas*, then concerning anything irrelevant or not following, it

is not to be denied, but in the case of *positio*, it is to be denied. Whence given 'The truth of things is that the Antichrist exists', then to this: 'The Antichrist is white', the response should be 'prove it!', but in the case of *positio* the response to the same should be: 'It is false!'

When a disputation is prefaced by saying 'let it be true that ...'. this changes the truth value of the proposition during the disputation in a way that conceding or denying a proposition does not. As a result, this type of *rei veritas* shows analogies with counterfactual reasoning (Uckelman 2015).

15.3 ORIGINS AND HISTORICAL DEVELOPMENT

It is widely acknowledged that the practice of disputation and debate occupied a prominent place in later medieval intellectual life, a trend that started as early as the eleventh century, if not earlier (Novikoff 2013). The emergence of the specific genre of disputation known as *obligationes* falls squarely within this broader trend, and as such is not exceptionally 'mysterious'. True enough, *obligationes* is a particularly regimented genre, but it is ultimately not too far removed in spirit from other kinds of disputations.

In some twelfth-century texts, we find terminology later associated with *obligationes* in discussions on disputation (Stump 1982; Martin 2001), especially the notion of *positio*, which may suggest that disputations roughly following the *obligationes* mould might have been taking place already at that point. But there seems to be no explicit reference to a genre of disputation called *obligationes*.

The (presumed) earliest texts specifically discussing *obligationes* have been tentatively dated to the first decades of the thirteenth century. These texts focus on the theory behind the practice, i.e. they are primarily directed towards the acquisition of the art of obligational disputations. In effect, we have no written record of obligational disputations as they actually took place, but we can only assume (on the basis of these texts) that they did take place.

It is also worth noticing that much of the vocabulary pertaining to *obligationes* has a distinctively juridical ring to it (Pironet 1995); '*obligatio*' itself is a legal term, famously defined in the *Institutes* of Justinian. The hypothesis that the development of *obligationes* may have been influenced by legal/juridical practices is plausible, but so far it has not been investigated in sufficient detail.

15.3.1 *Ancient Precursors*

A common theme in the historiography of Latin medieval logic in general is the connections between theories developed in this period and ancient sources, especially Aristotle (see Chapter 1 in this volume). In this respect, on the one hand, it makes sense to ask what could have been the ancient precursors of the genre, which may have provided the historical background for its emergence. On the other hand, we will argue that *obligationes* are a genuine medieval innovation, going beyond Aristotle.

At first sight, *obligationes* bear striking similarities with the dialectical game of questions and answers described in Aristotle's *Topics*. In these games, the participants are known as 'questioner' and 'answerer': Answerer picks an initial thesis, and then questioner tries to force answerer to concede further claims that contradict the initial thesis. *Obligationes* also involve two similar players, opponent and respondent,³ and at least superficially the two frameworks appear to be very similar.

However, virtually none of the early texts on *obligationes* explicitly mentions the dialectical games of the *Topics*. In effect, while the framework of the *Topics* as such had been familiar to Latin medieval authors via Boethius (Stump 1989), up to the thirteenth century, medieval authors tended to focus on the material from books II to VII (Stump 1989, chapter 3; Yrjönsuuri 1993, 61). These concern the doctrine of the *loci* (roughly, argumentation schemata) more

³ In the *Aristoteles Latinus* translation of *Topics* (due to Boethius in the sixth century, but only recovered in the twelfth century), 'questioner' and 'answerer' are translated as '*opponens*' and '*respondens*'.

than the issue of dialectical exchanges as such, which are discussed in books I and VIII. Presumably, it is only when Aristotle's *Topics* itself became more widely read in the thirteenth century (Dod 1982, 69) that many of these authors would have become familiar with Aristotle's own theory of dialectic.⁴ By then, the development of the obligational genre was already well on its way.

Nevertheless, once the *Topics* became more widely read, some thirteenth-century authors were quick to recognize the similarities with *obligationes*. This is the case particularly with the treatise attributed to Nicholas of Paris (dated circa 1240, edited in Braakhuis 1998) and of Boethius of Dacia's questions on the *Topics* (dated to the first half of the 1270s, discussed in Yrjönsuuri 1993). In the introduction to his seminal but unpublished critical editions of the *obligationes* treatises by William of Sherwood (mid-thirteenth century) and Walter Burley (early fourteenth century), Green (1963, 25) also notes that the opening words of Burley's treatise are almost identical to the opening words of chapter VIII.4 of Aristotle's *Topics*.

But if not directly the theory of dialectic present in the *Topics*, what else, if anything, could have been the ancient sources for the historical development of *obligationes*? Early treatises refer to the idea that an impossibility be posited to see what follows from it, and attribute this idea to Aristotle. Martin (2001) claims that no such thing is to be found in Aristotle's own writings,⁵ but that something similar is found in Boethius' *De Hypotheticis Syllogismis* (composed in the early sixth century), namely the idea of a proposition being agreed to not because it is thought to be true, but to see what would follow from it. These include even impossible propositions such as that a man is a stone, which presumably then gave rise to the idea of impossible *positio* (see Section 15.2.1). It is also worth noticing that in *Prior Analytics*, the concept of an argument through a

⁴ However, note that John of Salisbury's *Metalogicon* (1159) refers extensively to Aristotle's discussions of disputation in *Topics*.

⁵ However, in the *Topics* there are many passages arguably suggesting something to this effect.

hypothesis occupies a prominent position, and this too may have been an indirect source for the development of the idea of granting something so as to see what follows from it. Indeed, some later texts (e.g. John of Holland's in the fourteenth century) refer to *Prior Analytics* when discussing some aspects of *obligationes*, in particular the claim that from the possible, nothing impossible follows (*APri* 32a18–20).

Moreover, it has been convincingly argued (Martin 2001) that obligational disputations may have provided the motivation for the development of the literature on *insolubilia* (Chapter 11 of this volume). Furthermore, theories of consequence (Chapter 13 of this volume) also entertain close ties with the *obligationes* literature. Thus, three of the main topics in later Latin medieval logic appear to be closely connected.

15.3.2 *Thirteenth-Century Theories*

The (presumed) earliest extant treatises on *obligationes* are three anonymous and undated treatises edited by De Rijk and published in the mid-1970s: the treatise *Obligationes Parisiensis*, which is from the first half of the thirteenth century and can be tentatively dated to the first or second decade of the century (De Rijk 1975, 5); and the paired treatises *Tractatus Emmeranus de Falsi Positione* and *Tractatus Emmeranus de Impossibili Positio*, from the end of the twelfth century or the first half of the thirteenth century (De Rijk 1974, 96). None of these treatises can be dated exactly, but it is quite likely that the Emmeran treatises are the oldest. In both of these treatises, the only species of *obligatio* discussed is *positio* – giving the species a primacy which it continued to receive throughout the next two centuries.

This raises the question of what came first, the chicken or the egg? Or, in our case, *positio* or *obligatio*? As noted above, '*positio*' as a technical method is already present in some twelfth-century texts, long before the general genre of *obligationes* appeared on the scene (even if we assume that there were treatises earlier than the Emmeran

ones which haven't survived). Martin (2001, 63) gives examples of how *positio* was used in the context of twelfth-century reasoning about liar-like paradoxes. Liar paradoxes do not arise in a vacuum; they can only occur in certain circumstances which are unlikely to happen accidentally. The creation of such circumstances in which a liar-like sentence can be genuinely paradoxical was achieved via the act of *positio*, hypothesis or positing. The connection between the obligational species of *positio* and this use of *positio* is clear in the Emmeran treatises, where the examples used closely resemble what Martin calls Eudemian hypotheses (Martin 2001, 65). However, the Emmeran treatises clearly go beyond this method. In the treatise on false *positio*, *positio* is described as one of the ways 'in which a respondent can be obligated in a disputation'. This dialogical aspect is missing in the earlier discussions of Eudemian hypotheses and is, of course, one of the most important aspects of *obligationes*.

We also see the conscious development of these dialogical aspects in the treatise *Obligationes Parisienses*, which likely predates the middle of the thirteenth century. This treatise reflects a more developed stage of the genre, in that it discusses the types and species of *obligatio*, identifying six (*positio*, *depositio*, *dubitetur*, *institutio*, *rei veritas*, and *petitio*), before devoting a section to each of the first three. That this text still reflects a developing stage is clear from the discussion at the start of the second section, where the author considers the question of whether 'it must be doubted' is in fact a proper obligation for a disputant; the discussion, which refers back to Aristotle's *Topics*, is instructive for understanding both the roles of the various species of *obligatio* as well as the Aristotelian roots of the genre.

Once we move past these three early treatises, into the middle and late thirteenth century, the treatises start showing a more coherent and cohesive approach to *obligationes*. The treatises generally adopt the same division of *obligationes* into six species, and the rules presented for each are clear, comprehensive, and non-overlapping. From the middle of the second half of the century, we have a number

of texts with authors either explicitly ascribed or probable. These include the treatises putatively ascribed to William of Sherwood (the short *Tractatus Sorbonnensis de Petitionibus Contrariorum*, attributed to William of Sherwood, De Rijk 1976, 26, and a fuller treatment of the topic edited in Green 1963), a roughly contemporaneous treatise by Nicholas of Paris (Braakhuis 1998), a somewhat later treatise by Peter of Spain, and Walter Burley's canonical treatise (discussed in the next subsection).

What we see through the thirteenth century is the development and codification of a methodological tool which is essentially dialogical, and which can be put to use in many different contexts – be it the study of *insolubilia*, the working out of the notion of consequence, or as pedagogical exercises for students. True enough, *positio* is straightforward if one has antecedently a well-defined system of inference. But this is precisely what was being developed in the twelfth and thirteenth centuries, and the development of *obligationes* as a logical genre went in tandem with – and clearly influenced and was influenced by – the development of theories of consequence. If one doesn't already have a way of determining what follows from what, only the general constraint that an impossibility does not follow from a possibility, then *obligationes* show their utility as a method for identifying what follows from what: 'P' follows from 'Q' only if respondent's conceding 'P' after conceding 'Q' never leads to contradiction (a necessary but not sufficient condition).

15.3.3 Fourteenth-Century Theories

In the fourteenth century, *obligationes* became one of the main topics for Latin logicians. The development of the genre in this period can be summarized as follows: Walter Burley's treatise (composed in 1302) represents the standard formulation of the theory and is for the most part in line with developments in the thirteenth century. Subsequently, authors such as Richard Kilvington and Roger Swyneshed pointed out some odd properties of the standard theory;

these criticisms motivated Swyneshed in particular to introduce quite substantial modifications to the standard obligational rules in his *obligationes* treatise, written in the first half of the 1330s (Spade 1977). The two sets of rules were then referred to as *responsio antiqua* (Burley's approach) vs. *responsio nova* (Swyneshed's new approach). Swyneshed's approach seems to have garnered some adepts, but as it gave rise to its own set of problems, it eventually became entirely supplanted by the *responsio antiqua* again later in the fourteenth century. This section spells out these developments in more detail.

Before we proceed, a clarification on the content of *obligationes* treatises in general is in order. After some preliminary considerations, these treatises typically started by introducing the rules defining the correct moves in the game (generally, the rules applied only to respondent; opponent was virtually unconstrained in his moves). After that, a number of puzzles (usually referred to as *sophismata* – see Chapter 11 in this volume) were introduced so as to test the robustness and coherence of the set of rules just proposed. These puzzles were situations in which it would seem at first sight that the rules in question would lead to some incoherent result (for example, that respondent would be forced both to concede and to deny a given *propositum*). To defend his proposed rules, the author would then have to offer a solution to the puzzle by showing that his rules did offer the resources to avoid the incoherent result in question. So these *sophismata* were the main tools used to test the correctness and cogency of a given system of rules for obligational disputations; typically, the treatises have more pages discussing *sophismata* than discussing the rules as such. (See Section 15.4.1 for more on the connection between *obligationes* and *sophismata*.)

For example, Walter Burley's influential treatise spends many pages discussing puzzles that might constitute potential objections to his theory of *obligationes*, and rebuts these objections. However, later authors, in particular Kilvington in his *Sophismata*

(c. 1325) pointed out a number of other puzzling consequences of the Burley-style theory, which led Kilvington to propose some revisions of the usual rules (Stump 1982; Spade 1982b).

One of the properties of the *responsio antiqua* is that respondent may be forced to concede any falsehood whatsoever, if the *positum* is a disjunction of two (contingently) false propositions: if after the *positum* has been granted one of the two disjuncts is proposed, it should be denied as false and irrelevant (i.e. it is neither entailed by, nor incompatible with, the *positum*). But now, respondent has committed to 'P or Q' and to 'not-P', and these two commitments taken together force him to concede 'Q', i.e. the arbitrary falsehood. Similarly, if Q is proposed immediately after the *positum* instead of P, then Q will be denied and P subsequently granted, which is the exact opposite of the correct responses if P is proposed before Q. This means (as noted above) that the response a proposition should receive is also highly dependent on the *order* in which different propositions are proposed in a given disputation.

Roger Swyneshed was particularly dissatisfied with these consequences of the Burley-style theory, and proposed important modifications. The core of Swyneshed's proposed modifications is the fact that respondent's responses to impertinent *proposita* are not added to the pool of commitments on the basis of which subsequent *proposita* are to be evaluated (Dutilh Novaes 2007, 3.4). In other words, while for Burley a given *propositum* is to be evaluated on the basis of the *positum* but also the previously granted *proposita* and the contradictories of the previously denied *proposita*, for Swyneshed all *proposita* should be evaluated only on the basis of the *positum*.

In the example above, of a *positum* consisting of a disjunction of two falsehoods, both P and Q would be denied as irrelevant to the *positum* and false, regardless of the order in which they are proposed. So the 'inconvenience' of having to concede any arbitrary falsehood and the 'unwelcome' effect of order determining the responses are thereby excluded. The price to be paid, though,

is that in a Swyneshed-style disputation, it may well happen that respondent will be required to concede an inconsistent set of propositions (for example, to concede a disjunction while denying both disjuncts), a possibility excluded by the *responsio antiqua*.

Swyneshed's *responsio nova* seems to have had some influence, but it was also severely criticized by later authors. Ralph Strode, in particular (writing c. 1360/70s) criticizes Swyneshed's proposed modifications (Ashworth 1993), arguing that they lead to even more absurd conclusions than the ones Swyneshed attributed to the standard theory (for example, that one could concede a disjunction while denying both disjuncts). Towards the end of the fourteenth century, the standard approach represented in Burley's treatise reigned again, in treatises by Strode, Paul of Venice (1988), and Peter of Mantua (Strobino 2009), among others. But these later authors did not simply return to the Burleian formulation of the theory: their theories offer refinements that may be seen as prompted by the challenge posed by Swyneshed's *responsio nova*. *Obligationes* remained an item on the basic logic curriculum well into the fifteenth century, even if no significant theoretical innovations seem to have been introduced in this later period.

15.4 WHAT IS THE 'POINT' OF *OBLIGATIONES*?

Modern commentators have often raised the question of the 'point' of *obligationes*; what was the *purpose* of these theories? Many have described the genre as puzzling and mysterious. However, it is clear that the genre is fully embedded in an intellectual culture where disputations of various kinds occupied a prominent role. Moreover, it is worth noticing that obligational vocabulary is widely present in texts on a range of topics, suggesting that the framework is also useful for investigation and inquiry outside purely dialogical, disputational contexts.

In what follows, we first discuss some of the rationales for *obligationes* as offered by the medieval authors themselves, and then turn to modern interpretations.

15.4.1 *According to Medieval Authors*

Spade puts *obligationes* on his list of medieval ‘conspiracy theories’, famously wondering ‘Why don’t medieval logicians ever tell us what they’re doing?’ (Spade 2000). As it turns out, with regard to *obligationes*, medieval authors often *did* tell us. In this section, we are interested in answering two questions: (1) What is the purpose of *obligationes* according to medieval authors? (2) How, and how well, is that purpose carried out given the rules and applications in the treatises?

As should not be surprising, earlier treatises provide more guidance concerning the purpose and use of obligational disputations. The *Tractatus Emmeranus de Falsi Positione* says the method of false position has two purposes. The first, and primary, is ‘To see what follows from a statement when you assume it’. The second is the more general ‘To see what happens’. This second purpose is explored in the companion treatise on impossible *positiones*; as discussed above, in impossible *positio*, an impossible proposition is put forward initially by opponent, and the author’s argument for why this is not immediately problematic for respondent is that ‘What we can understand we can put forward, and what we can put forward we can concede’.

Obligationes Parisienses (De Rijk 1975) offers two different purposes for the disputations, and pairs with each purpose a specific type of *obligatio*. The species of *positio* is designed for acquiring beliefs and knowledge about the consequences that hold between statements, whereas the species of *dubitatio* is designed to teach respondent the appropriate art in restricted disputations.

Nicholas of Paris’ analysis is interesting for two different reasons. First, he agrees with others that *obligationes* are useful exercises, but differs from them in terms of the aim of these exercises. While many authors point towards the maintenance of consistency, Nicholas says that the aim is ‘glory and victory’. (The ‘victory’ vocabulary is also found in Strode’s treatise, composed roughly one century

later in the 1360s.) As a result, Nicholas' *obligationes* can be seen as an interesting synthesis of Aristotelian dialectical and sophistical disputations – they are dialectical in the method of proceeding, but sophistical in the intended aims.⁶ This rather self-centred approach to the disputations is unusual for treatises on *obligationes*, but shares some features with the treatises *De modo opponendi et respondendi*, edited by De Rijk (1980) and analysed by Pérez-Ilzarbe (2011). De Rijk dismisses the treatises in this tradition because of their overt aim of teaching the disputant how to deceive rivals (Pérez-Ilzarbe 2011, 129), but this dismissal is too quick, as being taught how to deceive also teaches one how not to be deceived – and 'avoiding traps' is one of the other explicit purposes which authors of obligational treatises offer.

In the later part of the thirteenth century and into the fourteenth century, we start to see explicit connections between obligational techniques and the solving of sophisms. Such statements can be found in the late-thirteenth-century Oxford *Tractatus Sorbonnensis* (de Rijk 1976), which cites both *falsi positio* and *petitio contrariorum* 'petition of contraries' as tools for solving sophisms. A fifteenth-century anonymous treatise, found in conjunction with a reworking of Peter of Spain's *Tractatus Syncategorematicum*, also focuses on the connection between obligational techniques and insoluble sentences. In particular, the purpose of *obligationes* is given as setting and escaping from traps, specifically that from something possible an impossibility does not follow, and that certain propositions by their signification destroy themselves. Further corroboration for this approach can be found by looking not at treatises on *obligationes* but at treatises on sophisms and insolubles, where even though obligational disputations are not defined and introduced explicitly, much of the same vocabulary – ought to concede, ought to deny, etc. – is used.

Other authors pick up on the consistency-maintenance aspect of *obligationes* as primary, such as the anonymous *De arte obligatoria*

⁶ Notice that both *Sophistical Refutations* and the *Topics* also contain instructions on how to deceive opponent.

written in Oxford probably between 1335 and 1349 (Kreztmann and Stump 1985). The author offers three explicit purposes for his text: to test whether respondent has the art; to provide direction in exercise; and 'so that we may know what to do and how to respond when things are in fact as the false *casus* indicates'. In particular, these techniques are said to be useful for both jurists and moral philosophers.

Of course, Spade is right that not all authors provide guidance to the goal and purpose of the disputations. For example, John of Holland's (1985) *Obligationes*, written between 1369 and 1375 and a standard university text on the topic in the late fourteenth and early fifteenth centuries, does not discuss the matter at all. Nevertheless, it would be a mistake not to look at what authors who do say something actually say, and not to take these statements seriously in the determination of the function and place of *obligationes* in both medieval logic and medieval academic life.

15.4.2 *Modern Interpretations*

There is a certain tendency among modern scholars of medieval logic to attempt to establish the closest counterpart to a given medieval theory among modern theories or concepts. In the first instance, this may be viewed as a potentially fruitful heuristic, aiming at making the medieval theories more intelligible to modern audiences. Moreover, there seems to be another, more ideological reason for this tendency, namely the idea that such a comparison will reveal why modern readers should be interested at all in these medieval theories – i.e. insofar as they resemble modern theories and concepts, and thus speak to modern concerns. However, it has been argued (Dutilh Novaes 2007, chapter 1; Cameron 2011) that such projections may well hinder the comprehension of the medieval theories and concepts in question in that they obfuscate what is specific about them. Thus, comparisons with modern theories must be undertaken with great caution, essentially with the goal of obtaining explanatory effect, and aiming at an understanding of these theories in their own terms.

In their attempts to make sense of the ‘point’ of *obligationes*, modern commentators tend to focus only on *positio*, ignoring the other genres. A number of interpretations of *positio* have been proposed (Dutilh Novaes 2007, 3.2). *Positio* has been variously described as a theory of counterfactual reasoning (Spade 1982c; King 1991), as being closely connected to modern theories of belief revision (Lagerlund and Olsson 2001), as proto-axiomatic theories (Boehner 1952), and as a framework for the formulation of thought experiments (King 1991). Arguments against each of these interpretations of *positio* can be found in Dutilh Novaes (2007, 3.2) and Uckelman (2011a, 2013), but one common feature they have is the almost total disregard for the inherently dialogical, multi-agent nature of *obligationes*.

Indeed, as we’ve argued throughout this chapter, it is important to take the dialogical component into account when discussing *obligationes*: it is not happenstance that the framework is presented in terms of two agents, opponent and respondent, and their dialogical interactions. Now, there are numerous modern theories of dialogues, in connection with logic (in the tradition of dialogical logic), philosophy (Brandom 1994), and argumentation theory. These theories also display different levels of formalization/regimentation. We suggest that, among these modern theories, a number of them may be fruitfully compared to *obligationes*. The choice of framework for such comparisons should be made in respect of the specific aspect(s) of *obligationes* that a given analysis seeks to highlight.

Some of the explicitly multi-agent, dialogical interpretations of *obligationes* that have been proposed (not coincidentally, by the authors of the present chapter) are: *obligationes* as games of consistency maintenance (Dutilh Novaes 2007, 3.3); *obligationes* as a theory of discursive commitment management, somewhat in the spirit of Brandom’s ‘game of giving and asking for reasons’ (Dutilh Novaes 2009, 2011); *obligationes* as formal dialogue systems (Uckelman 2013); *obligationes* as something different from dialogical logic (Uckelman 2011a).

15.5 CONCLUSION

In this chapter, we have surveyed the main features in the development of medieval theories of *obligationes*. These developments span roughly three centuries, and it is important to keep in mind the variety of approaches and concepts. Nevertheless, there is a core that remains more or less stable throughout, and we have argued that the key to understanding the obligational genre is to focus on its multi-agent, dialogical nature. In a nutshell, *obligationes* represent a highly regimented form of disputation, focusing on the phenomenon of discursive commitment transfer through inferential relations between propositions. As such, besides the obvious historical import, *obligationes* have much to offer also to modern philosophers and logicians interested in the formal, structural properties of dialogues.