Medieval Obligationes

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The *obligationes* are a highly structured and stylized form of dialectical disputations.
They were mainly developed during the fourteenth century.
Nowadays ;

- their origin is unclear,
- their purpose remains unknown,
- few treatises translated out of latin and available.

Earlier tracks of *obligationes*

In twelfth century : some occurrences of some obligation terminology are found in lists of *Sophismata*.

In thirteenth century :

- the putative William of Sherwood's *De Obligationibus*,
- Nicholas of Paris's treatise (c. 1230-1250),
- Anonymous *Obligationes Parisienses* in Oxford, Canon. misc. 281,
- Anonymous treatise in Munich, *CLM*, 14 458 and in Paris, *B.N. Lat*, II, 412.

In fourteenth century : the heyday of obligation.

Some authors from the fourteenth century

- Walter Burley (or Burleigh) (c. 1274/5 ; d. after 1344),
- Robert Holcot (c. 1290 ; d. 1349),
- Richard Kilvington (c. 1302/5 ; d. 1361),
- Roger Swyneshed (or Swineshed) (d. 1365),
- Ralph Strode (d. 1387),
- Albertus de Saxonia (c. 1316 ; d. 1390),
- Peter of Mantua (d. 1399/1400),
- Richard Lavenham (d. 1399/1403),
- Paul of Venice (b. 1369 ; d. 1429)

Aristotelian Roots

Dialectical form of the obligations was inherited from Aristotle. Scholastics themselves tend to attribute the source of the obligations to several Aristole's passages.

- *Topics* (VIII, 4, 1159a 15-24) : the job of the answerer "is to make appear that it is not he who is responsible for the impossibility or paradox, but only his thesis."
- *Topics* (VIII, 5) : because of a lesser inconvenience (*inconveniens*) a major inconvenience is not to be granted.
- *Prior Analytics* (I, 13 32a 18-20) : from the possible nothing impossible follows.
- *Metaphysics* (IX, 3 1047a 24-26) is also mentioned by Peter of Spain

Topics and *Prior Analytics* provide the theoretical foundations of the obligation.

The *obligationes* are played by two participants : an **Opponent** and a **Respondent**.

The word '*obligationes*' is related to the fact that the Respondent is committed to uphold a thesis (previously put forward by the Opponent) with respect to precise constraints.

There are different kinds of obligation. Burley's treatise gives the most common division (into 6 disputations) :

- Institutio (or Impositio)
- Petitio
- Positio
- Depositio
- Dubitatio
- Sit verum

They are all governed by the same general rules.

Opponent and Respondent agree on the content of a set of background knowledge **K** before running the disputation.

- The disputation starts with the Opponent putting forward a proposition (called *positum*)
- The Respondent can either accept or deny it. If he denies the disputation is over.
- If he accepts the disputation goes on.

The only requirement is that the *positum* must be contingent and not contradictory in itself. Respondent should deny it only if it is contradictory.

Positio

- The Opponent introduces other propositions one at a time. The propositions are assertions and may be either atomic or complex.

- The Respondent can either *grant*, *deny* or *doubt* them according to certain general rules.

- The disputation is over when the Opponent says '*Cedat tempus*' (time is over) ;
    - either when the Respondent contradicts himself,
    - or the time has run out.

Respondent's aim : to maintain the *positum* as true in the disputation and the consistency of his set of answers.

Opponent's aim : to lead the Respondent to inconsistency, i.e. to give two different answers to the same proposition or to grant (or deny) contradictory propositions.

Positio : Burley's general rules

1. "Everything that is posited and put forward in the form of the *positum* during the time of the *positio* must be granted."

2. "If it is irrelevant, it must be responded to on the basis of its own quality ; and this [means] on the basis of the quality it has relative to us. For example, if it is true [and] known to be true, it should be granted. If it is false [and] known to be false, it should be denied. If it is uncertain, one should respond by saying that one is in doubt".

3. "Everything that follows from the positum must be granted. Everything that follows from the positum either together with an already granted proposition (or propositions), or together with the opposite of a proposition (or the opposites of propositions) already correctly denied and known to be such, must be granted.

4. "Everything discrepant with the positum must be denied. Likewise, everything discrepant with the positum together with an already granted proposition (or propositions) or together with the opposite of a proposition (or the opposites of propositions) already correctly denied and known to be such, must be denied.

The *positio* consists in a finite ordered sequence of propositions Σ built by the Respondent.

The construction of Σ is governed by the general rules for the disputation.

At first step, $\Sigma_0 = \{\phi_0\}$ where ϕ_0 is the *positum*.

For all ϕ_n put forward by the Opponent, we say that ϕ_n is **relevant** if :

- either $\Sigma_n \vdash \phi_n$ (**consequently relevant**)
  The Respondent has to grant ϕ_n, therefore $\Sigma_{n+1} = \Sigma_n \cup \{\phi_n\}$

- or $\Sigma_n \vdash \neg\phi_n$ (**discrepant relevant**)
  The Respondent has to deny ϕ_n, therefore $\Sigma_{n+1} = \Sigma_n \cup \{\neg\phi_n\}$

For all ϕ_n put forward by the Opponent, we say that ϕ_n is **irrelevant** if and only it is not relevant.

- Either $\Sigma_n \nvdash \phi_n$, $\Sigma_n \nvdash \neg\phi_n$ and $\phi_n \in \mathsf{K}$.
  The Respondent has to grant ϕ_n, therefore $\Sigma_{n+1} = \Sigma_n \cup \{\phi_n\}$

- or $\Sigma_n \nvdash \phi_n$, $\Sigma_n \nvdash \neg\phi_n$ and $\phi_n \notin \mathsf{K}$.
  The Respondent has to deny ϕ_n, therefore $\Sigma_{n+1} = \Sigma_n \cup \{\neg\phi_n\}$

- or $\Sigma_n \nvdash \phi_n$, $\Sigma_n \nvdash \neg\phi_n$ and $\phi_n \notin \mathsf{K}$ and $\neg\phi_n \notin \mathsf{K}$.
  The Respondent has to doubt whether ϕ_n, therefore $\Sigma_{n+1} = \Sigma_n$

$K = \{$you are not in Rome, you are not a bishop$\}$

Opponent	Respondent	
I posit you are in Rome. ϕ	accepted	*positum*, $\Sigma_0 = \{\phi\}$
You are not in Rome or you are a bishop $\neg\phi \vee \psi$	granted	irrelevant and true $\Sigma_1 = \{\phi, \neg\phi \vee \psi\}$
You are a bishop ψ	granted	consequently relevant $\Sigma_2 = \{\phi, \neg\phi \vee \psi, \psi\}$

It is possible to prove any falsehood consistent with the *positum*.

$K = \{$you are not in Rome, you are not a bishop$\}$

Opponent	Respondent	
I posit you are in Rome. ϕ	accepted	positum, $\Sigma_0 = \{\phi\}$
You are a bishop ψ	denied	irrelevant and false $\Sigma_2 = \{\phi, \neg\psi\}$
You are not in Rome or you are a bishop $\neg\phi \vee \psi$	denied	discrepant relevant $\Sigma_1 = \{\phi, \neg\psi, \neg(\neg\phi \vee \psi)\}$

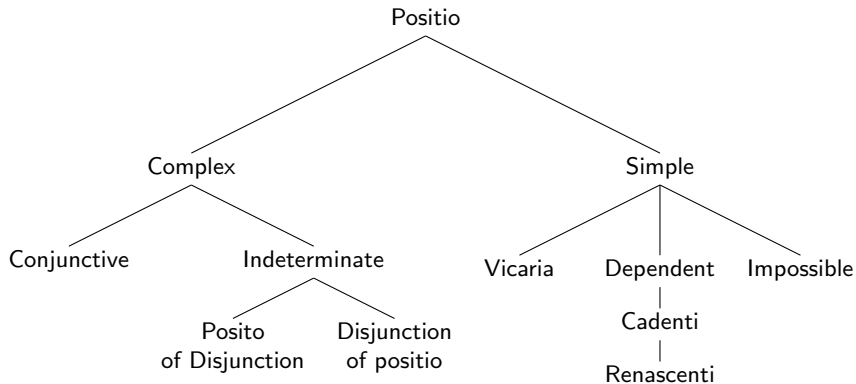The order in which the propositions are put forward may make a difference to their evaluation.

The *positio* is divided into several sub-class of disputations that cover a large amount of issues related to the *sophismata* ;

- how can we justify a thesis w.r.t. its outmost form ?
- what are the consequences of some epistemic conditions w.r.t the defence of the *positum* ?
- what are the consequences of the reference of the terms w.r.t the Respondent's commitments in the disputation ?
- what are the consequences of the properties of the terms w.r.t. the Respondent's commitments in the disputation ?

Each of these disputations comes with additional rules.

Positio

Complex

Conjunctive

Indeterminate

Posito
of Disjunction

Disjunction
of positio

Simple

Vicaria

Dependent

Cadenti

Renascenti

Impossible

Respondent way of playing must provide the justifications of the *positum* w.r.t. its outmost form.

The complex *positio* is concerned with the cases where the *positum* is :

- either a conjunction (conjunctive *positio*),
- or a disjunction (Indeterminate *positio*).

When a conjunction is stated as *positum*, the Respondent must be able to defend each of the conjuncts therefore he must grant each of them.

Opponent	Respondent	
$\phi \wedge \psi$	$\phi \wedge \psi$	*positum*
ϕ	grant	consequently relevant
ψ	grant	consequently relevant

The Indeterminate *positio* brings two types of disputation together :

- The *positio* of a disjunction : a disjunction is stated as *positum*.
- Disjunction of a *positio* : one of the disjuncts is stated as *positum* but the Respondent does not know which one.

K= $\{\phi, \psi\}$

Opponent	Respondent	
	$\phi \vee \psi$	*positum*
ϕ	grant	irrelevant and true

If both disjuncts are true, the first one proposed must be granted.

K= $\{\phi, \neg\psi\}$

Opponent	Respondent	
	$\phi \vee \psi$	*positum*
ψ	deny	irrelevant and false
ϕ	grant	consequently relevant

The true one must be granted and the false one denied.

K= $\{\phi\}$

Opponent	Respondent	
	$\phi \vee \psi$	*positum*
ψ	doubt	irrelevant and dubious
ϕ	grant	consequently relevant

If one of the disjunct is true, it must be granted.

$\mathsf{K} = \{\neg\phi, \neg\psi\}$

Opponent	Respondent	
	$\phi \vee \psi$	*positum*
ϕ	deny	irrelevant and false
ψ	grant	consequently relevant

> *If both disjuncts are false, the first one proposed must be denied.*

By the disjunctive syllogism and the rule of relevance, the Respondent grants ψ.

K= $\{\neg\psi\}$

Opponent	Respondent	
	$\phi \vee \psi$	*positum*
ϕ	doubt	irrelevant and dubious
ψ	deny	irrelevant and false
ϕ	grant	consequently relevant

If ϕ is dubious and ψ is false then the respondent must respond doubtfully to ϕ when it is first proposed, and later if ψ is proposed it should be denied. And then if ϕ is proposed again, the respondent must grant it.

Specific feature

K= ∅

Opponent	Respondent	
	$\phi \vee \psi$	*positum*
ϕ	doubt	
ψ	doubt	

If both disjuncts are dubious, they must be doubted.

In this case, the Respondent does not lose the disputation. The disjunction can be maintained as true without knowing which of the disjuncts is true.

Specific feature

$\mathsf{K} = \{\phi \rightarrow \psi\}$

Opponent	Respondent	
	$\phi \vee \psi$	*positum*
ψ	grant	

If $\phi \rightarrow \psi$ then the Respondent must grant the consequent ψ.

Specific feature

Opponent	Respondent	
	$\phi \vee \psi$	*positum*
ϕ	grant	
ψ	grant	

If both disjuncts are necessary, they must be granted.

Consequences of the rules :

- Even if both disjuncts are false, the Respondent has a winning strategy.
- Even if both disjuncts are doubted, the Respondent has won the disputation.
- The Respondent can doubt and grant/deny the same proposition without losing the disputation.

We suppose that the Respondent has to defend a disjunction, however, one of the disjuncts is stated as *positum* but the Respondent does not know which one.

The disputation starts with the supposition that $\phi \vee \psi$ is true.

K= $\{\phi, \psi\}$

Opponent	Respondent	
	$[\phi \vee \psi]$	
ϕ	grant	
ψ	grant	

If the two disjuncts are true, they must be granted.

The disjunction runs here as a conjunction.

K= {ϕ, $\neg\psi$}

Opponent	Respondent	
	[$\phi \lor \psi$]	
ϕ	grant	
ψ	doubt	

If one of the disjuncts is true, it must be granted.

K= $\{\neg\phi, \neg\psi\}$

Opponent	Respondent	
	$[\phi \vee \psi]$	
ϕ	doubt	
ψ	doubt	

If both disjuncts are false, they must be doubted.

$\mathsf{K} = \emptyset$

Opponent	Respondent	
	$[\phi \vee \psi]$	
ϕ	doubt	
ψ	doubt	

If both disjuncts are dubious, they must be doubted.

Opponent	Respondent	
	$[\phi \vee \neg\phi]$	
ϕ	doubt	
$\neg\psi$	doubt	

Both disjuncts in excluded middle must be doubted.

$K = \{\phi \rightarrow \psi\}$

Opponent	Respondent	
	$[\phi \vee \psi]$	
ψ	grant	

The consequent must always be granted.

Consequences of the rules :

- when both disjuncts are true, the disjunction behaves as the conjunction,
- when at least one of the disjuncts are true, the disjunction behaves as usual,
- the Respondent will deny no propositions. False and dubious propositions must be doubted.

Possible interpretation : the disjunction behaves as a kind of *tonk*. The rule enable the Respondent to avoid trivialization by leading him to doubt instead of denial.

The simple *positio* gathers a set of disputations :

- the Dependent *positio* (terminating and renascent *positio*).
- Vicarious *positio*
- Impossible *positio*

The *positio* is called **dependent** when the *positum* is stated under some condition ; " ϕ_0 will be *positum* under the condition ψ".
There are two types of dependent *positio* :

- **Terminating positio** (*cadenti*). The *positio* is called *cadenti* when the *positum* ceases to be *positum* during the disputation.
- **Renascent positio** (*renascenti*). The *positio* is called *renascenti* when the *positum* becomes again *positum* after it has ceased to be *positum*

Burley's rules for the dependent *positio* :

> *The dependent positio must not be accepted when the possibility of the positio depends on a futur act except on condition*

Two constraints :

- nothing discrepant with the *positum* must be introduced.
- nothing incompossible with the *positum* must be introduced.

The vicarious *positio* brings three types of disputation together. It seems to deal with two different issues :

- the consequences that some epistemic constraints have on the Respondent's commitments in the disputation.
- the consequences that the reference of the terms have on the Respondent's commitments.

1. In the first vicarious *positio*, the Respondent is compelled to react to the propositions on behalf of another, e.g. Burley. The Respondent must therefore know how Burley would react to the propositions introduced by the Opponent.

2. In the second vicarious *positio*, players agree about the reference of terms before the dialogue starts. Suppose they know that Hesperus and Phosphorus refer to the same star and let the Respondent be committed to defend that Hesperus is the evening star. Therefore he is also bound to grant that Phosphorus is the evening star.

3. In the third vicarious *positio*, the reference of the term can change during the disputation. The Respondent can learn during the dialogue that Hesperus is Phosphorus, which commits him to grant that Phosphorus is the evening star only after he learned it.

Only impossible propositions must be introduced in the disputation. The word impossible can be understood in different ways :

- Inconceivable impossible (*inopinabile*)/ Conceivable impossible (*opinabile*)
- Accidentally impossible (*per accidens*)/ Essentially impossible (*per se*)

Inconceivable impossible propositions are contradictions ($a \wedge \neg a$). The Respondent must not accept them as *positum*.

Conceivable impossible propositions are known as false but they are not contradictory by themselves. E.g. "A man is not an animal".

According to the Burley's treatise, the conceivable impossible propositions seems to be false w.r.t. the background knowledge. In this case, does the Opponent always have a winning strategy ?

Essentially impossible propositions associate one individual with two incompatible properties, e.g. "a round square".
Accidentally impossible propositions are those becoming impossible during the disputation.

The underlying idea of impossible *positio* seems to have a close affinity to the Aristotelian idea of assuming a possibility in order to see whether anything impossible follows.

The impossibility of the *positio* does not allow the Respondent to grant contradictory opposites, that is inconceivable or *per se* impossibility.

Burley's rules :

1. *"ex impossibili sequitur quodlibet ; necessarium sequitur ad quodlibet"* -principle does not hold.

2. Only *opinabile* propositions must be put forward as *positum*.

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