Dialogue games before Lorenzen: A brief introduction to *obligationes*

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LogICCC Launch Conference
5–7 October, 2008

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Obligationes are a game-like disputation, conceptually very similar to Lorenzen's dialectical games.

The name derives from the fact that the players are "obliged" to follow certain formal rules of discourse.

Different types of *obligationes*

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- *positio*.
- *depositio*.
- *dubitatio*.
- *impositio*.
- *petitio*.
- *rei veritas / sit verum*.

Authors who wrote on *obligationes*

- Nicholas of Paris (fl. 1250)
- William of Shyreswood (1190–1249)
- Walter Burley (*or* Burleigh) c. 1275–1344)
- Roger Swyneshed (d. 1365)
- Richard Kilvington (d. 1361)
- William Ockham (c. 1285–1347)
- Robert Fland (c. 1350)
- Richard Lavenham (d. 1399)
- Ralph Strode (d. 1387)
- Peter of Candia (late 14th C)
- Peter of Mantua (d. 1399)
- Paul of Venice (c. 1369–1429)

Recent research on *obligationes*

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- First treatises edited in the early 1960s; "real" start in the late 1970s.
- Few treatises currently translated out of Latin; not very accessible to non-medievalists.

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  Uckelman, 2008. "What is the point of *obligationes*?", talk presented at Leeds Medieval Congress, July 2008:
  http://staff.science.uva.nl/~suckelma/latex/leeds-slides.pdf
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Positio according to Burley

- Two players, the **opponent** and the **respondent**.
- The **opponent** starts by positing a *positum* φ^*.
- The **respondent** can “admit” or “deny”. If he denies, the game is over.

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- The **respondent** can "admit" or "deny". If he denies, the game is over.
- If he admits the *positum*, the game starts. We set $\Phi_0 := \{\varphi^*\}$.
- In each round n, the **opponent** proposes a statement φ_n and the **respondent** either "concedes", "denies" or "doubts" this statement according to certain rules. If the **respondent** concedes, then $\Phi_{n+1} := \Phi_n \cup \{\varphi_n\}$, if he denies, then $\Phi_{n+1} := \Phi_n \cup \{\neg\varphi_n\}$, and if he doubts, then $\Phi_{n+1} := \Phi_n$.

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- The **opponent** can end the game by saying *Tempus cedat*.

An example of *positio*

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I posit that Cicero was the teacher of Alexander the Great: φ^*.	

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The teacher of Alexander the Great was Roman: φ_0.	I deny it.	Impertinent and false; $\Phi_1 = \{\varphi^*, \neg\varphi_0\}$.
Cicero was Roman: φ_1.	I deny it.	Pertinent, contradicts Φ_1.

Properties of Burley's *positio*.

Provided that the *positum* is consistent,

- no disputation requires the **respondent** to concede φ at step n and $\neg\varphi$ at step m.
- Φ_i will always be a consistent set.
- it can be that the **respondent** has to give different answers to the same question.
- The **opponent** can force the **respondent** to concede everything consistent.

References:
Dutilh Novase, Catarina. 2005. *Formalizations après la letteres*, Ph.D. thesis, Universiteit Leiden.

Spade, Paul V. 2008. "Medieval theories of *obligationes*", *Stanford Encyclopedia of Philosophy*,

http://plato.stanford.edu/entries/obligationes/.

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Suppose that φ does not imply $\neg\psi$ and that φ is known to be factually false.

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I posit φ.	I admit it.	$\Phi_0 = \{\varphi\}$.
$\neg\varphi \vee \psi$.	I concede it.	Either φ implies ψ, then the sentence is pertinent and follows from Φ_0; or it doesn't, then it's impertinent and true (since φ is false); $\Phi_1 = \{\varphi, \neg\varphi \vee \psi\}$.

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ψ	I concede it.	Pertinent, follows from Φ_1.

Two broad classifications

responsio antiqua	*responsio nova*
Walter Burley	Roger Swyneshed
William of Shyreswood	Robert Fland
Ralph Strode	Richard Lavenham
Peter of Candia	
Paul of Venice	

- Walter Burley, *De obligationibus*: Standard set of rules.
- Roger Swyneshed, *Obligationes* (1330–1335): Radical change in one of the rules results in a distinctly different system.

positio according to Swyneshed.

- All of the rules of the game stay as in Burley's system, except for the definition of *pertinence*.
- In Swyneshed's system, a proposition φ_n is pertinent if it either follows from φ^* (then the **respondent** has to concede) or its negation follows from φ^* (then the **respondent** has to deny). Otherwise it is impertinent.

Properties of Swyneshed's *positio*.

Provided that the *positum* is consistent,

- no disputation requires the **respondent** to concede φ at step n and $\neg\varphi$ at step m.
- The **respondent** never has to give different answers to the same question.
- Φ_i can be an inconsistent set.

positio according to Kilvington

- *Sophismata*, c. 1325.
- *obligationes* as a solution method for sophismata.
- He follows Burley's rules, but changes the handling of impertinent sentences. If φ_n is impertinent, then the **respondent** has to concede if it were true if the *positum* was the case, and has to deny if it were true if the *positum* was not the case.

Impositio

- In the *impositio*, the **opponent** doesn't posit a *positum* but instead gives a definition or redefinition.
- **Example 1.** "In this *impositio*, *asinus* will signify *homo*".
- **Example 2.** "In this *impositio*, *deus* will signify *homo* in sentences that have to be denied or doubted and *deus* in sentences that have to be conceded."

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  Suppose the **opponent** proposes "*deus est mortalis*".
  - If the **respondent** has to deny or doubt the sentence, then the sentence means *homo est mortalis*, but this is a true sentence, so it has to be conceded. Contradiction.
  - If the **respondent** has to concede the sentence, then the sentence means *deus est mortalis*, but this is a false sentence, so it has to be denied. Contradiction.

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  - If the **respondent** has to concede the sentence, then the sentence means *deus est mortalis*, but this is a false sentence, so it has to be denied. Contradiction.
- An *impositio* often takes the form of an insoluble.

Dubitatio

In *dubitatio*, the **respondent** must doubt the statement that the **opponent** puts forward (called the *dubitatum*).

Rules:

- if φ or $\neg\varphi$ is equivalent with the *dubitatum*, φ must be doubted.
- if φ implies the *dubitatum*, it must be doubted or denied.
- if φ is implied by the *dubitatum*, it must be doubted or accepted.
- if φ is irrelevant, the **respondent** should accept if he knows φ is true, deny if he knows φ is false, and doubt if he does not know either.
- the exercise cannot be terminated (!)
- world-knowledge does not change ("all responses must be directed to the same instant").

Reference: Uckelman, Maat, Rybalko, "The art of doubting in *Obligationes Parisienses*", forthcoming in Kann, Löwe, Rode, Uckelman, eds., *Modern Views of Medieval Logic*.

DiFoS research goals concerning *obligationes*

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- Describe the foundational value of Lorenzen's dialogical logic.
- Embed it into a modern scientific context taking into account is historical roots.

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- Embed it into a modern scientific context taking into account is historical roots.
  - Formal relations between modern interactive approaches, Lorenzen's dialogical semantics, and *obligationes*: formalizations, consistency proofs, winning strategies.
  - Connections between dialogue and proof (in medieval logic and mathematics)
  - Investigation of the epistemic underpinnings of, e.g., *dubitatio*.
  - Interactive website for *obligationes*:

`http://www.illc.uva.nl/medlogic/obligationes/`


obligationes - Mozilla Firefox
File Edit View History Bookmarks Tools Help
http://www.illc.uva.nl/medlogic/obligationes/
Google
Home
Play the Game
Positio
Dubitatio
Depositio
Institutio
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About this site
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Obligationes
What Are Obligationes?
Obligatio (or "obligations") is a formal disputation form that was widespread in medieval Europe. The earliest writings on obligations date from the beginning of the thirteenth century, but the theoretical roots can probably found much earlier, assumably in Aristotle's "Topics". Obligatio can be viewed as a game between two players, the opponent (opponens) and the respondent (respondens). The opponent puts forward some hypothesis and the respondent decides whether he denies or admits the hypothesis. In the first case the game doesn't start, in the latter case the game is on it's way. The opponent puts forward questions (propositions) that may or may not relate directly to the hypothesis. The respondent answers these questions with 'I concede', ' I deny' or 'I doubt it'. This is where the name of the game comes in: both players oblige to a very strict set of rules that determine how a question should be answered according to both the hypothesis, the propositions already put forward and the real world. When the respondent follows these rules closely, he or she can maintain a consistent 'world' that follows logically from the original hypothesis. The goal for the opponent is to trick the respondent in 'responding badly' within the game time that the players agreed upon. When the game time is up or when the respondent has responded badly, the opponent ends the game by saying "cedat tempus".
One interesting aspect of this logical game, is that ,while it is clear that obligationes were widespread and heavily debated from the thirteenth century on, the actual purpose of the game remains unclear.
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obligationes - Mozilla...
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