Gödel‘s ontological argument
Contextualisation and Reception

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Outline

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Introduction
What is an ontological argument or proof?

- Ontological (gr. onto = „being“, -logia = „logical discourse“) can be translated to „study of being“.

- Fundamental questions of ontology include:
  - What exists? What is an essence?
  - What are the meanings of being?
  - Is existence a property?
Proof versus Argument

- Argument: set of premises with the last being conclusion

- Proof: set of statements and axioms being stated or inferred with last statement being conclusion (*thesis*).
  - Every single step of the statements must be true (inferred by rules of application).
What can we possibly expect of a proof of God’s Existence?
John Turri: No ontological argument can possibly succeed.

1. We can not have non-empirical knowledge that other beings exist \textit{now}.

2. God is defined as a being.

3. If an ontological argument is sound, we would know that God exists.

4. We would hence know non-empirically that another being (God) exists. (Contradiction to first premise!)
Historical development

✧ Three historical periods of interest in ontological proofs:

1. 11th century St. Anselm of Canterbury
2. Middle 17th to early 18th century: Descartes being improved by Leibniz
3. 20th century onwards including Gödel's argument in 1973

✧ Islamic, Greek-Orthodox and Jewish tradition

1. The utter otherness. The oneness of God. Tahwid
2. Speaking of God in paradoxes.
3. *Hesychasm* (Greek: „stillness“, „silence“)
Historical predecessors

Anselm of Canterbury: (1077 – Proslogion)

1. God is a being than which none greater can be imagined.
2. A being than which none greater can be conceived exists at least in the mind.
3. It is greater to exist in reality than to exist only in the mind.
4. Therefore, God – a being than which none greater can be conceived – exists not only in the mind but also in reality.
Leibniz: Anselm did not proof God’s possible existence.

Leibniz improved Anselm’s proof (1714 – Monadology):

(1) By definition, a perfection is a simple quality that is positive and absolute.

(2) A simple quality that is positive and absolute is irresolvable or indefinable. *(Premise)*

(3) A and B are perfections whose incompatibility can be demonstrated.

(4) In order to demonstrate the incompatibility of A and B, A and B must be resolved. *(Premise)*

(5) Neither A nor B can be resolved. *(From 2)*

(6) (Hence) It cannot be demonstrated that A and B are incompatible. *(From 3, 4 and 5 by reduction)*
Gödel’s “Ontologischer Beweis”
An example of Gödel's Gabelsberger shorthand (from 1938)
A1 Either a property or its negation is positive, but not both:
\[ \forall \varphi [P(\neg \varphi) \leftrightarrow \neg P(\varphi)] \]

A2 A property necessarily implied by a positive property is positive:
\[ \forall \varphi \forall \psi [(P(\varphi) \land \Box \forall x [\varphi(x) \to \psi(x)]) \to P(\psi)] \]

T1 Positive properties are possibly exemplified:
\[ \forall \varphi [P(\varphi) \to \Diamond \exists \varphi(x)] \]

D1 A *God-like* being possesses all positive properties:
\[ G(x) \equiv \forall \varphi [P(\varphi) \to \varphi(x)] \]

A3 The property of being God-like is positive:
\[ P(G) \]

C Possibly, a God-like being exists:
\[ \Diamond \exists x G(x) \]

A4 Positive properties are necessarily positive:
\[ \forall \varphi [P(\varphi) \to \Box P(\varphi)] \]

D2 An *essence* of an individual is a property possessed by it and necessarily implying an of its properties:
\[ \varphi \text{ ess } x \equiv \varphi(x) \land \forall \psi [\psi(x) \to \Box \forall y (\varphi(y) \to \psi(y))] \]
**T2** Being God-like is an essence of any God-like being:
\[ \forall x [G(x) \rightarrow G \text{ ess } x] \]

**D3** **Necessary existence** of an individual is the necessary exemplification of all its essences:
\[ NE(x) \equiv \forall \varphi [\varphi \text{ ess } x \rightarrow \Box \exists y \varphi(y)] \]

**A5** Necessary existence is a positive property:
\[ P(NE) \]

**L1** If a God-like being exists, then necessarily a God-like being exists:
\[ \exists x G(x) \rightarrow \Box \exists y G(y) \]

**L2** If possibly a God-like being exists, then necessarily a God-like being exists:
\[ \Diamond \exists x G(x) \rightarrow \Box \exists y G(y) \]

**T3** Necessarily, a God-like being exists:
\[ \Box \exists x G(x) \]
Reception
Flaws and other objections

- Axiom 2 and 5 can give reason for objection.
- The proof invokes Modal Collapse: Everything that is the case, is so necessarily.
- Begging the question: Defining things into existence.
- Kant: Is being a perfection?
- Aquinas: God's reality is unlike any other reality to us. How to conceive the infinite with a finite mind?
Conclusion

- The proof is essentially a modal version of Leibniz' proof in 1714.
- Proof is not strong enough and not meant to bring others to theism.
- The axioms used are reasonable, although bearing problems with them.
- Once accepted the premises and definitions imply God's existence.
  (defined as a being necessarily existing and having all positive properties)
- This was proven with the help of computers by the present Prof. Benzmüller in 2013.
References


References


◊ (Proofs version taken from: Christoph Benzmüller, Bruno Woltzenlogel Paleo, *The Ontological Modal Collapse as a Collapse of the Square of Opposition.*)
Thank you