

Sunday, 12. January 2025

## **Exam topics**

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## Intro, semiotics, philosophy

Main materials:

- [Semiotics for beginners](#). first half is obligatory. **E**
- [Quine: Two Dogmas of Empiricism](#). **E**
- [what is analytic philosophy](#).
- [analytic/synthetic](#). **E**
- [logical positivism](#).
- [Problem of universals nominalism/realism](#). **L**
- [functionalism](#). **E**
- [phenomenology](#).
- [Propp](#).

Useful to read/listen:

- [philosophy bites podcasts](#). Start with this **strongly recommended** episode.
- [Sam Harris with David Chalmers](#)
- **L** [Philosophy of Metzinger](#): background reading [Self models](#) and look, for example: [Metzinger video](#)
- [Tractatus and Tractatus: structured full text](#). **L** [Wittgenstein](#). Read a bit, [along with a commentary](#)
- [Philosophical investigations](#): read the first 100. A small summary [of early vs late Wittgenstein](#)

Notes on structuralism, deconstruction and friends:

- [structuralism](#) **L**, [dekonstruktivism](#), [dekonstrueerimise kiirõpetus](#), [Derrida section](#), [hermeneutics](#)
- [insheption](#)
- sympathetic magic: [wiki](#), [Frazer](#)

Please help me study for my exam using my resources. Example questions from last year are included in the notebook. Use examples and explanations to teach me on the following topics:

- Semiotics (first half of the book)
- Quine: Two Dogmas of Empiricism
- Analytic/synthetic
- Problem of universals nominalism/realism
- Functionalism
- Structuralism

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## Evolution of brain, intelligence and society

Sociobiology, evolutionary psychology and memetics.

Main material:

- [Evolution](#): intro lecture.
- [Sociobiology in wikipedia](#). [E](#).
- [Evolutionary psychology in wikipedia](#). [E](#). You may also want to read more details in [primer](#) ja [conceptual grounds](#)
- [Memetics in wikipedia](#). [E](#)
- [Universal grammar](#) [L](#) theory of Chomsky

Important papers:

- [BRAIN EVOLUTION AND NEUROLINGUISTIC PRECONDITIONS](#) [L](#)
- [pdf version](#) and textual: [CO-EVOLUTION OF NEOCORTEX SIZE, GROUP SIZE AND LANGUAGE IN HUMANS](#) [L](#)
- [Precis of Origins of the Modern Mind: Three Stages in the Evolution of Culture and Cognition](#) [L](#)
- [DNA seen through the eyes of a coder](#)
- [Epigenetics](#) vt ka [seda artiklit](#)

Please help me study for my exam using my resources. Example questions from last year are included in the notebook. Use examples and explanations to teach me on the following topics:

- Sociobiology
- Evolutionary psychology
- Memetics
- Universal grammar
- Brain Evolution And Neurolinguistic Preconditions
- Co-Evolution Of Neocortex Size, Group Size And Language In Humans
- Precis Of Origins Of The Modern Mind: Three Stages In The Evolution Of Culture And Cognition

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## Brain science

### Intro material

For exam:

- [https://en.wikipedia.org/wiki/Cognitive\\_neuroscience](https://en.wikipedia.org/wiki/Cognitive_neuroscience) **L**
- [https://en.wikibooks.org/wiki/Cognitive\\_Psychology\\_and\\_Cognitive\\_Neuroscience/Memory](https://en.wikibooks.org/wiki/Cognitive_Psychology_and_Cognitive_Neuroscience/Memory) **L**
- [https://en.wikipedia.org/wiki/Computational\\_theory\\_of\\_mind](https://en.wikipedia.org/wiki/Computational_theory_of_mind) **E**

Please help me study for my exam using my resources. Example questions from last year are included in the notebook. Use examples and explanations to teach me on the following topics:

- Cognitive Neuroscience
- Memory
- Computational theory of mind

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## Infinity, logic and philosophy of mathematics

The first topic is intro to the philosophy of mathematics, mainly the questions of infinity and unsolvability.

Materials to read:

- English intro: [infinity, limits of computation and undecidability](#) **E**
- in parallel, the same themes [supporting text](#), written by the lecturer as an afterword to the book about Gödel's incompleteness theorems. You may try to use Google translate or some such for the English version: however, it is not a obligatory material.
- [numbers, infinity and metaphors](#) (in Estonian, very short, metaphorical)
- [Ordinals: read from 6.2 Classifying the ordinals](#)
- [Russell paradox from wikipedia](#)

Videos have heads down:

- Intro lecture: 6. oct 2022, in Estonian.
- Seminar lecture: 6. oct 2022, in Estonian.

More about infinity and computability:

- Salvestus teamsis, 13. oktoober, in Estonian.

Helpful read: [cardinality wikipedias](#). Read more about Gödel's incompleteness theorem from SEP: a part of a larger incompleteness-article.

A longer story about the [philosophy of mathematics](#) from SEP.

Nonclassical logics, related to the philosophy of mathematics:

- In Estonian: [mitteklassikalised loogikad](#). Siin on pealeloetud jutuga variant: **E** downloadi ja vaata normaalses täisekraan-vaatamisrežiimis, siis kuuled slaidide juures minu juttu.
- A good technical read from SEP about [intuitionist logic](#).
- Estonian material and videos about modal logics: [modaalsed loogikad](#) **L** ja vaata [eelmise aasta teamsi salvestust samast loengust](#)
- Good half-hour presentations about [axioms of modal logic](#) and [kripke semantics / possible worlds](#). A more philosophical take available in the [series \(playlist\)](#) from the same author, but long. Additionally useful [presentation](#) . SEP has good articles [on modal logic](#) and [related philosophy](#), both highly technical.

More on nonclassical logics:

- [modal logic in wikipedia](#)
- [philosophy around modal logic from SEP](#)
- [philosophy around intuitionistic logic from SEP](#) **L**

Please help me study for my exam using my resources. Example questions from last year are included in the notebook. Use examples and explanations to teach me on the following topics:

- English intro: infinity, limits of computation and undecidability
- Nonclassical logics
- Modal logics
- Philosophy around intuitionistic logic

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## Thinking and AI

Notes for the overview talk

Classic ideas about the main questions of AI philosophy (close to the questions about functionalism):

First, a somewhat old interview with a classic:

- [Steven Pinker](#) from the [lex fridman ai podcast](#).

Read the wiki pages of main issues:

- [http://en.wikipedia.org/wiki/Philosophy\\_of\\_artificial\\_intelligence](http://en.wikipedia.org/wiki/Philosophy_of_artificial_intelligence) [L](#)
- [Functionalism](#) [E](#)
- [SEP artikel AI-st](#): read partially, could be partially boring

Technical stuff from Graziano about neuroscience related to consciousness:

- [Graziano on consciousness and neuroscience](#)

Detailed arguments and counterarguments for the

- [chinese room](#) [L](#)

Some good core stuff

- For starters [Rodney Brooks's](#) small AI series [part 1](#), [part 2](#), [part 3](#), [part 4](#) and predictions [scorecard 2020](#), [scorecard 2024](#)
- Importantly, two interesting essays by Rodney Brooks from 2023 [What Will Transformers Transform?](#) [L](#) and [Three Things That LLMs Have Made Us Rethink](#) [L](#)
- Listen to [Stuart Russell on AI dangers](#)

Please help me study for my exam using my resources. Example questions from last year are included in the notebook. Use examples and explanations to teach me on the following topics:

- Functionalism
- Philosophy of Artificial Intelligence
- Chinese room
- What will transformers transform?
- Three things that LLMs have made us rethink

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## Dialog, pragmatics, uncertain knowledge

The first subject is dialogue pragmatics. Several related branches (have a brief look, but no need to read deeply unless you become interested):

- [Speech acts](#) [L](#) sentences doing something, not just conveying information
- [Implicature](#) [L](#) with Grice's maxims as a central theme
- [Relevance theory](#) further development of Grice's maxims

Read this intro: [Numeric uncertainty](#) ([L](#) as explained next):

- Certainly up to the section "Different ways to encode confidences in logic", also looking at the wikipages pointed to
- Briefly look into the following sections, but do not focus or spend much time on these. The [Numeric uncertainty](#) intro was originally made for [this course](#).

Please help me study for my exam using my resources. Example questions from last year are included in the notebook. Use examples and explanations to teach me on the following topics:

- Speech acts
- Implicature
- Numeric uncertainty (up to the section "Different ways to encode confidences in logic")