Legal Terms as a Modally Indifferent Substrate

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1. The Granularity Problem
What the smallest entity is?

- Democritus: “the atom”
- Contemporary physics:
  - “mesons”
  - “bosons”
  - etc.

Physics
Granularity in a legal system

Legal System

• Hans Kelsen: “the norm”
• Hajime Yoshino: “the legal sentence”
• ?
A model is the problem

• Physics:
  – The atom model:
    • Subparticles (electrons + protons + neutrons)
    • e.g. hydrogen, oxygen and other elements
  – The molecule model:
    • e.g. H₂0, Na₂O, H₂SO₄
  – Etc.

• Legal system:
  – ?

• Different models because of different tasks
Legal System

Legal Norm
A model of a legal system

- \( \text{Legal}\_\text{system} = \{\text{Norm}_1, \text{Norm}_2, \text{Norm}_3, \ldots\} \)
- No hierarchical structures
- Not productive approach to
  - distinguish different models of legal systems
- One concept – “the norm” – serves to concern
  - Is and Ought
  - Causality and imputation
Legal System

MIS – modally indifferent substrate
Ought-Modus
Ought-Modus

O(A)

MIS

A
Ought-Modus

O(A-B-C)
2. Deontic Logic
Deontic Logic

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Obligation
Permission
Vetum
Liberty

Ought-Modus

O(A-B-C)
Deontic Logic

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Legal Ontologies

Ought-Modus

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Diagram 15
Different tasks – different ontologies

- Different tasks [Valente 1995]
  - Domains of legal information systems
  - Branches of law
    - The private law, the criminal law, etc.
  - Functions of law
    - Legislative, executive, judicial
- Different granularity “atoms”
  - a law, article, sentence, phrase, word
- Different namespaces
Conclusions

• The subject matter of our analysis:
  – the modes of obligation
  – the elements of MIS
Thank you