

CURRICULUM VITAE

PERSONAL INFORMATION

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EDUCATION

1981–85 Eötvös Loránd University, Department of Philosophy, Budapest / Philosopher

1970–73 Kandó Kálmán Faculty of Electrical Engineering, Institute of Automation, Bp. / Dipl. Ing.

PROFESSIONAL BACKGROUND

- 2014–retired
- 1993–2014 The Regional Environmental Center for Central and Eastern Europe
Position: Head of IT and Technical Department
Description: I was responsible for organizing the work of technical staff and external IT experts.
- 1992–1993 Mayor's Office of Budapest's XVIIIth District
Position: System administrator
Description: I was the Novell supervisor and technical assistant.
- 1983–1992 RAMOVILL home electric service network, Technical Department
Position: Engineer, system administrator
Description: I was responsible for testing and repairing digital and analogue electronic systems.
- 1973–1983 Telecommunications Research Institute
Position: Engineer, designer *Description:* I was responsible for developing electronic circuits.

AREAS OF SPECIALIZATION

Metaphysics, philosophical logic

PUBLICATIONS

1. "The inherent risks in using a name-forming function at object language level" *The Reasoner*: 9/5, May 2015
2. "On the Paradox of the Adder" *The Reasoner*: 5/3, March 2011
3. "The Concept of 'Possibility' based on States of Finite Automata." *E-Science*: 2010/2 (in Hungarian)

Abstract

In this paper I utilize the concept of Mealy machines, which I consider to be models of physical objects. I set up a classification system of finite automata that is similar to that of the various types of analogue systems. I point out that the internal states of finite automata correspond to the possible worlds and that the alternative relation between the possible worlds corresponds to the possible internal state transitions of automata. The formal properties of the internal state transitions are determined by the type of the given automaton. Therefore the type of the automaton defines the formal properties of the alternative relation, which again determines the logical properties of the possibility. On the basis of this interpretation one can elaborate the concept of 'Possibility'. As result, the possible world semantics may be reduced to the operation and formal properties of automata.

4. "Finite State Machines as Dimensions of Reality and Explanation." *E-Science*: 2009/2 (in Hungarian)

Abstract

The paper has two related central themes. The first is the distinction between the three existential modes: everyday life, historical time and explanation. This study presents a cybernetic model for the philosophical interpretation of the truth problem. The model works

electronically. It is based on Tarski's insights, and does not touch upon the relevant theory of Kripke and Barwise. The model provides an arithmetic translation of propositional logic, as the model of one language in another language. With the help of this translation the analysis also discusses an electronic model of propositional logic. This simply means the use of an electronic spreadsheet programme. In the course of this, I discuss the basic features of Mealy's theory of finite automata (Finite State Machines), and then approach the truth problem from this perspective. The reason I have opted for this way of analysing these problems is because the delineation of a philosophical problem with the help of a spreadsheet is an apt example of what is considered to be an easily intelligible explanation in the 21st century. The cybernetic model as such does not form part of the printed version of this text. The explanation and description of the workings of the model do not equal the model itself. The latter exists via living, practical contact with the user, and therefore the contingent time of everyday life. The model can be downloaded from my website.

The second theme is feedback and paradox. Every truth function corresponds to an isomorphic digital circuit. Consequently, the logical structure of every proposition can be presented within the range of propositional logic as an equivalent digital circuit. Provided that the logical values 'true' and 'false' correspond to the 'high' and 'low' voltage levels, the output of a circuit equivalent with contradiction is always low level for every input state, while the output of a circuit corresponding to a tautology is always high level, irrespective of input state. On the other hand, the remaining propositions correspond to circuits the output of which is high level if and only if some of the atomic components of the proposition are true, or rather, the inputs equivalent with the atomic propositions are high level. But what is the equivalent of a circular statement? The propositions are true or false irrespective of time, whereas the voltage level of the circuits can change in time. More accurately, one can say that the input levels of the circuits are high or low depending on whether we evaluate the atomic formulae of the formula which expresses the logical structure of the proposition to be true or false, for the voltage level of the output of the circuit and truth-value of the formula result from these formulae. I call the digital circuits 'combinatorial automata', which may thus serve to model the formulae of propositional calculus. Formulae connected with truth functions yield further formulae. Although there are always corresponding combinatorial automata for these, the situation is not quite so simple in every case, for we do

not find combinatorial automata joined to each other in each case; it is also possible that we will not find an automaton – an operating machine or circuit – there at all. There are digital circuits the output of which is not a function of the input. The range of automata is wider than that of the combinational automata. It includes machines the input states of which do not determine unambiguously their output states, i.e. the output is not a function of the input. This is because the circuit has a feedback. Most digital circuits belong to this latter group, which I call the 'sequential automata'. The question arises as to whether there is a logical structure of circulating statement that corresponds to such a sequential automaton (or sequential circuit). In my view, the logical structure of the Liar Paradox coincides with the operation of a sequential automaton, irrespective of the logical correctness of the paradox itself.

The analysis also examines possible ways in which the model could be further developed. The study does not claim to offer the absolute explanation that makes all other explanations superfluous. It merely states that the model it offers is worth thinking about and developing.

5. "Models inside and outside of mathematics." In Hungarian Science (bulletin of the Hungarian Academy of Sciences): November 2007 (in Hungarian)
6. "Similarity, uniformity and identity." In *Mi a nyugat? Atlantizmus és integráció*. Ed. Imre Garaczi, Veszprémi Humán Tudományokért Alapítvány, Viza Kft., Veszprém, 2007 (in Hungarian)
7. "Notes on an interpretation of special relativity." *Physical Review*: 2005/9 (in Hungarian)
8. "The scientific understanding of the world and a hypothesis of the evolution of the universe." *Hungarian Philosophical Review*: 1979/3–4 (in Hungarian)