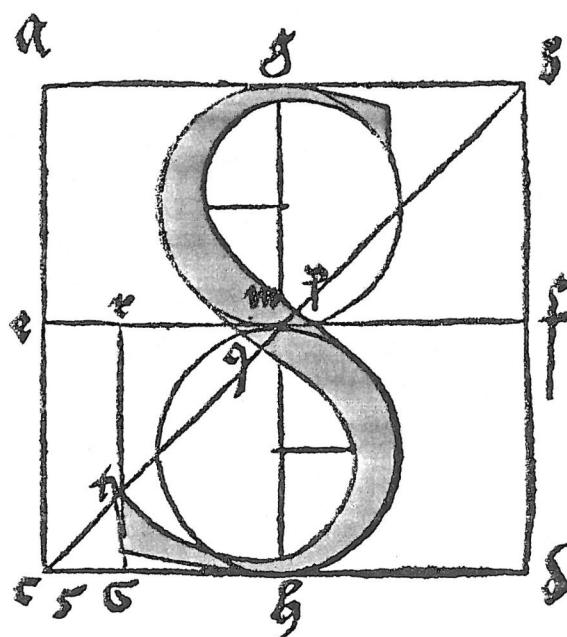


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# Sign Processes in Complex Systems Zeichenprozesse in komplexen Systemen Sémiose dans les Systèmes Complexes Significación en los sistemas complejos

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ABSTRACTS

valent, qui se réfère tant au niveau de l'isotopie cosmologique (relation *nature-culture*) qu'au niveau de l'isotopie idéologique (relation *individu-société*).

Cette relation beauté-bonté revient, sous diverses formes équivalentes, dans les systèmes poétiques, langagiers et culturels – elle revient avec une insistance qui en fait l'une des constantes de la tradition culturelle néohellenique.

### **Angelika KARGER (Stuttgart, Germany):**

*Semiotische, kognitionsphilosophische und wissenschaftstheoretische Fragen zur „Evolution des Erfolges intelligenter komplexer Systeme“*

Es ist offensichtlich, daß aus der natürlichen biologischen Evolution „erfolgreiche“, „intelligente“ und „komplexe“ Systeme hervorgingen, die auf komplexen semiotischen Repräsentations- und Kommunikationsstrukturen beruhen. Welche semiotische Theorien, welche erkenntnistheoretischen und wissenschaftstheoretischen Modellierungen können das Zustandekommen solcher aus kosmologischer Sicht zunächst unwahrscheinlichen Ereignisse wie das *selbstorganisatorische Entstehen „komplexer“, „intelligenter“ Systeme erklären?*

Hierzu möchte der Vortrag einen Beitrag leisten unter kritischer Klärung und Erläuterung der verwendeten Begriffe wie „Erfolg“, „Intelligenz“ usf. Die semiotische *Sonderstellung des Menschen* als komplexes intelligentes System wird weitergehend in Frage gestellt und durch manchen interessanten Perspektivenwechsel in Biologie und Forschung in der KI (Künstliche Intelligenz) neu aspektiert.

Aus diesen neuen Aspekten ergeben sich neue Suchräume hinsichtlich der Frage, ob es der Menschheit als *Superorganismus* gelingen wird, ihre Probleme trotz des Gegeneinanders ihrer Mitglieder zu lösen.

### **Ivan KASSABOV (Sofia, Bulgaria):**

*The language picture of the world and encyclopaedia as a complex sign system*

An economic representation of human knowledge follows the classical model of the *encyclopaedia*, which offers a systematic and contemporary representation of human knowledge. However, each natural language presents the physical and cultural universe from the specific point of vantage of the community using this language. Every language segments the continuum of the world in a specific way and organizes its parts into an own *picture of the world* within the context of the respective culture.

Within semiotic doctrine it is a truism to say that language is the primary shaping system through which all other media find their expression. The linguistic *picture of the world* finds its systematic representation in the *dictionary model*, which shows the world naively and on popular grounds. The *encyclopaedia* model represents, however, the world objectively and on scientific grounds.

The linguistic semantics conveys the world on popular (everyday) picture-of-the-world opinion. The combination of both models – *encyclopaedia* and *dictionary* – can be regarded as a cultural model, achieved by means of a specific type of lexicographic modelling of the semantic domain in order to arrive at a structural

representation of the culture as a whole. This is encountered in the *multimedia encyclopaedia-dictionary* scheme, where the finely tuned machinery of internal tension and the flexibilities of the relationships are practiced.

**Etsuko KATO (Toronto, Canada):**

*A drifting signified in new social contexts: The Japanese tea ceremony as a sign after 1868*

This paper examines how the two drastic social changes in modern Japan, the 1868 Meiji Restoration and the 1945 defeat in World War II, have affected the signified of the tea ceremony. It is maintained that on each occasion Japan confronted the cultural crisis, and that the *tea ceremony* acquired the new signified in respective context in order to defend the Japanese culture against the West. Special attention is drawn to the significance of the tea ceremony for *women*, who comprise more than ninety per cent of tea practitioners today. The paper claims that (1) in the time of ultranationalism following the Meiji Restoration, the tea ceremony became "*art of tea utensils for men*" and "*bodily discipline for women*". It was called "art" for men to compete with the Western concept of art and to patronize the antique tea utensils, while its bodily disciplinary function came to be used in women's education before marriage. (2) After the defeat in World War II scholars came to claim that the tea ceremony was a "*cultural synthesis*", in order to encapsulate and preserve various vanishing "traditional" cultures in it. Here the bodily disciplinary aspect of the tea ceremony was reinterpreted as "*performing art*" and was integrated as part of a "*cultural synthesis*". This new ideology appealed to women in the postwar period, since it opened opportunities for them to study related cultural domains which had been monopolized by men in the preceding era, without conflicting the surviving virtue of femininity.

**Helena KATZ (São Paulo, Brazil):**

*The body as a communication system*

Since Copernicus, Darwin and Freud gave their contributions to humanity, science has been concerned with three issues – we in relation to the universe, to the rest of the organic kingdom, and to ourselves. The result is cosmology, biology and psychology. Copernicus taught us that the earth was a fragment of a cosmic system of unimaginable vastness. Darwin proved man's descent from the animal kingdom. Freud discovered the unconscious. Some scholars argue that a new realm is established by connecting *man & machines*. The aim of this paper is to explain the relation between man & machines as a continuity. Brains and working machines can be explained through the interaction of tools, physical and mental-emotional changes. The notion will be broadened to the point of absorbing the notion of body as a complex system. Men survived through tools turning into machines (*mechanical devices or automata*). This anthropocentric vector puts man as the only one who creates machines, as the unique description of what occurred. Darwinism explained that man itself can be understood as a tool created by nature for survival.