

ARGUMENTATION AS A COGNITIVE PROCESS

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The project deals with argumentation treated as a cognitive process. The general goal of the project is to confront and synthesize the results of research on argumentation generated by various scientific disciplines, such as philosophy of mind and epistemology, formal logic, computational science, and cognitive psychology.

The domains of research:

- 1. The structure of argumentation** (i.e. the structure of selected types of argumentation which are used in everyday, social and scientific discourse).
- 2. The forms of mental representations which subserve the process of argumentation and the construction of propositional knowledge.**
- 3. The cognitive mechanisms of argumentation** (e.g. Is the process of argumentation realized by a computational mechanism or by some other mechanism? Are different types of argumentation realized by different cognitive mechanisms or by the same mechanism?)
- 4. Cognitive architecture for intelligent agents** (Modeling of dynamic reasoning)
- 5. The logical mind** (in the sense that the cognitive system which includes it has the capacity for discovering or constructing axioms and the laws of logic, proving theorems, and understanding logical rules. The question is: how does the logical mind work? Do we have any encoded structures which are needed for logical thinking (i.e. for inferences or following rules) or do we acquire them by learning? Do we have any pre-wired logical rules, or are they learned? Is our capacity for logical thinking innate or acquired?)
- 6. Brains, logics and computational models** (How can brains, using massively parallel computations, perform logical thinking?)
- 7. Practical argumentation** (The mechanisms of practical argumentation, in which conclusions are not strictly inferred from logical rules but which take into account various and unstable

situational contexts. Two types of dynamic models of argumentation: (i) positive ones, in which the interlocutors are treated as reliable – models of trust, and (ii) negative ones, in which the agent is capable of purposefully applying false premises in order to instill erroneous beliefs in his or her interlocutors, or he or she uses other kinds of unreliable strategy – models of deception.)

Conferences

(under the auspices of the Polish Society for Cognitive Science)

15-17 May 2008

Argumentation as a Cognitive Process

13-15 May 2010

Argumentation as a Cognitive Process.

**Neurodynamics, Logic and Models of Argumentation
with related events: Logic in Cognitive Science**

The conference was devoted to the memory of John L. Pollock (1940-2009) who in 2007 has accepted the invitation to participate in the project.

Publication plans

1.Special issue of „Studia Logica”

see related topics:

New Ideas in Argumentation Theory, Special issue of "Studia Logica", eds: Dov M Gabbay, Leendert Van der Tore, " Studia Logica", vol. 93 no.1-2, 2009 Springer

New Ideas in Applied Logic, Special issue of "Studia Logica", eds: Dov M. Gabbay, Jacek Malinowski, "Studia Logica", vol. 92 no.3, 2009 Springer

2. A tome commemorating John Pollock – a collection of papers with a dedicated part on Pollockian topics.

Correspondence concerning materials for publication in „Studia Logica” should be addressed to the editor of „Studia Logica”, Jacek Malinowski:
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and concerning publication in the book (or if after the 15th of December 2010, in another form) should be addressed to Urszula Zegleń:
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