



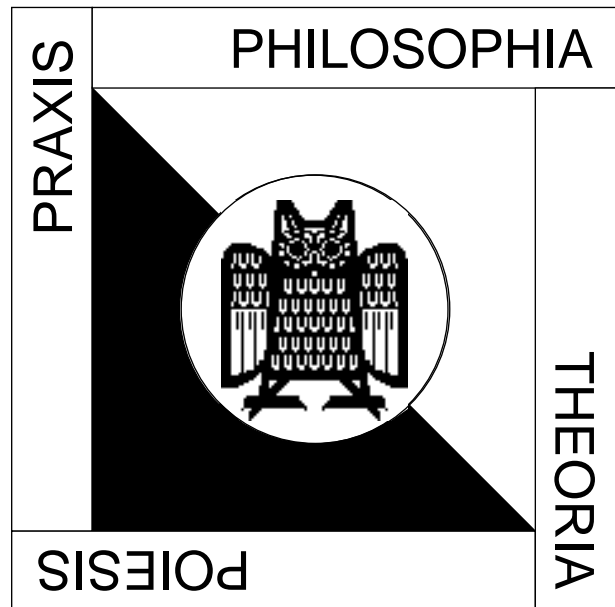
## RATIO: Limited RATIOality

The philosophical project RATIO is concerned with the question as to how people succeed in understanding utterances even in cases of insufficient knowledge (internal resources) or insufficient contextual information (external resources). An answer to this question rests on the observation that semantically incomplete or ambiguous utterances may receive a meaning by relying on knowledge derived from other sources, e.g. from non-verbal signs. According to this procedure any utterance is treated as part of a more general action: semantics is viewed at from a pragmatic angle.

Especially with respect to the cross-section project of applying results of the projects in a scenario 'Orientation in Large Airports' RATIO is engaged in elucidating the introduction of individual orientational knowledge with spatio-temporally present

external signs when finding one's way in a highly complex artificial space. It is typical for a scenario of this kind to be confronted with very specific limitations of resources: from lack of enough time till lack of sufficient verbal or sign-language competence. Using procedures of semiotic classification together with available results of the cognitive sciences it is possible to provide case-studies as detailed as to lay open some of the weak points of sign systems at present in use as well as to develop some new criteria for devising cognitively adequate guiding systems in complex spatial areas.

Hence, the philosophical project RATIO is neither concerned with empirical results about natural cognitive processes nor with the implementation of formal models of such processes on a computer. The conceptual work in RATIO belongs to the philosophy of science and aims at results which may serve as contributions to a fragment of an interdisciplinary theoretical language appropriate for the various projects. Within a workshop scheduled to take place in 2000, the state of the art in dealing with the problem of limited rationality shall be discussed; it will be specially concerned with two sorts of examples: imprecise reference (of a result of some cognitive action) and unstable inference (as an instantiation of a cognitive action) with respect to their dependency from each other. Both imprecise reference and unstable inference derive from some unavoidable ambiguity, because in general there are many ways of modelling an ordinary action in terms of a cognitive action, e.g. a verbal utterance.



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