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A program to draw up the concept of logical information (II)

Abstract:

1. There are three basic assumptions of the paper: (i) Cognitive / non – cognitive information exists on/y within the signs-signals-symbols generating processes ("semiosis"); (ii) As any information exists only bya codifying device or manner, it follows that any codification process is a continuous re-codification process and this fact modifies information (generating or annulling it, increasing or decreasing it);(iii) Information exists if and only if there is an information user.

2. Working out a concept of logical information has advanced the same slippery problems as in the case of the theory of logic: thinking logically, with logical means, over effective logical processes. As rational use of information rests on further implications of exclusive inferential resources, a key role of inferences is then to fill gaps in available information, to complete meanings and contextual senses for the missing ones, i.e. to decrease / eliminate uncertainty. An inference could be logically approached whenever a reasoner, either human or machine, goes beyond the evidence given by information, allude to different relations to be stated between meaningful terms and theses relations can be stated in terms of formal and propositional logic, class and relation logic, set theory, modal expressions and heuristically. There is a striking similitude between the scheme¬-structure of communication and the scheme-structure of inference. So, codification is precisely the "sine-qua-non" of the information: in this context, information is not indifferent to codification, as well as codification is not indifferent to information. The inference could be looked upon as a codification device. Information is not always a code, but the code is always information; as a matter of fact, if level differences are taken into 8CCOunt, then what is code – in some respect – is information – in some other respect – and conversely. It follows that codification generates information: logical information is an inference-codification product and a peculiar kind of codification as well.

3. The purpose of the paper is to point out a possible direction for drawing up a new construct: logical information. There are two kinds of logical information: (i) immanent logical information – the information that is provided by logical forms and operations themselves and (ii) emergent logical information – the information that is provided by the logical processing of a given discourse in a given language (signs-signals-symbols system). To identify them and to estimate their amount two new constructs are needed: logical vicinity / proximity and logical distance (on a logical vicinity / proximity). Their analysis can be drawn syntactically, semantically and pragmatically. The analysis of the formal information is here restricted to narrow limits of the 16-set of binary logical connectives and the negation.