Changeability and Constancy in Frame of Consistency. Modal Logic LC□

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Experience of changes occurring in the world is sometimes cause for constructing various philosophical theories, which are planned to explain the nature of changeability and establish at least some relationships between change and certain attributes of reality. Theories describing formal properties of changeability that are considered as basis for some particular considerations about change are named *logics of change*. In the presented lecture we are going to show one of such logics – a sentential calculus named LC□. In connection of this theory we describe its crucial ontological presuppositions and give corresponding to these presuppositions semantical characteristics of it. The proposed semantics may be interpreted ontologically or epistemologically – the crucial notion of *a history of situational changes* (which note that a situation may turn from *fact* to *fiction* or from *fiction* to *fact*) may be reformulated in such a way that we can speak about *histories of changing convictions of some agent* (in frame of this approach somebody may change his convictions from α to not-α or from not-α to α).

The proposed theory is an enriched description of changeability in this sense, that it considers not only change by itself (characterized by a modal operator C read: *it changes that* ...), but also its opposite – *constancy* (described by a modal operator □ read: *it lasts, that* ....). Both notions are not definable by each other, but they are linked together in axiomatics. Logic LC□ realizes two important ontological presuppositions: (1) the presupposition about possibility of consistent description of change and (2) the Leibnizian suggestion, about priority of the notion of change to temporal notions. In connection to the first postulate the logic LC□ is an extension of classical logic. Independently from the notion of constancy, changeability enables us to define a temporal notion of succession.

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