A FORMALISM FOR THE CLASSICAL SENTENCE-LOGIC

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I have introduced in my paper [1] a formalism for lower order predicate logics in which any sequence of variables and brackets ('[' and ']') can be regarded as a meaningful (well-formed) sentence. Also, in my paper [2], I have introduced another formalism of the same kind for a certain kind of predicate logics of higher order. Can we introduce a formalism of the same kind properly for sentence logics too? Since sentence logics can be regarded as a sub-system of predicate logics, we are apt to consider that our device introduced in [1] works well for sentence logics too.

However, to make every sequence of variables and brackets meaningful in sentence logics is a task other than to do it in predicate logics, because meaningful sentences in predicate logics are not necessarily meaningful in sentence logics. Indeed, my answer for the above-mentioned question is only PARTLY YES. I can really introduce a formalism of this kind for the classical sentence-logic. Namely, I can introduce a formalism of the same kind for sentence-logical part **LOS** of the primitive logic **LO**[1] having a special proposition symbol for CONTRADICTION, and I can interpret the **K**-series sentence-logics[2] faithfully in **LOS**. However, I can interpret only **J**-series logics (even the sentence-logical part of them) in **LO** as a predicate logic, so I can hardly give any formalism of this kind for **J**-series sentence logics.[3]

The device I am going to introduce in the present paper for expressing sentences of **LOS** is denoted by **FLOS** (FORMALIZED **LOS**). In **FLOS**, VARIABLES together with HEAD-BRACKET '[' and TAIL-BRACKET ']' are employed for expressing sentences. If we assume **FLO**, the formalism introduced in [1] for expressing sentences of the primitive logic **LO**, the formalism **FLOS**

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[1], [2] and [3] In my paper [3], I have studied on faithful interpretations of logics **LJ**, **LK**, **LM**, **LN**, **LP**, and **LQ** in **LO**. **LJ**, **LM**, and **LP** are called **J**-series logics, and **LK**, **LN**, and **LQ** are called **K**-series logics. As for detailed description of these logics, see [3].