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ALGEBRA OF DEONTIC NOTIONS

S u m m a r y

Leibniz suggested that deontic modalities can be defined in terms of the alethic modalities; according to him, the permitted (*licitum*) is what possible for a good man to do and the obligatory (*debitum*) is what is necessary for a good man to do. The paper starts from specifying a connection of deontic concepts with the moral values. The connection comes down to define an isomorphism of two Boolean algebras: from deontic one onto axiological one. The work presents theories of two algebras of deontic notions: the algebra of sets and the Boolean algebra.

The theory of deontic set is based on the two axioms: $x \in V$ (an act x is an element of the set of acts subordinated to some norm or law) and $x'' = x$ (an act x is identical with double denial of x). By means of definitions following notions are introduced: Λ (the empty set of acts), N (the set of ordered acts), Z (the set of forbidden acts), P (the set of obligatory acts), F (the set of optional acts), D (the set of permitted acts), I (the set of indifferent acts). The calculus is structured by rules of the Słupecki-Borkowski's suppositional deduction. Forty five theorems are proven in this calculus.

The second theory presented in the paper, is a Boolean algebra of deontic notions. Added to the theory of equality, it takes axioms from the theory of Boolean algebras with addition of a specific axiom for the deontic system i.e., $N = N \cap D$. Sixty four theorems are proven in this calculus.

Summarised by Edward Nieznański

Słowa kluczowe: pojęcia deontyczne, modalności deontyczne, związek pojęć deontycznych z wartościami moralnymi, algebra zbiorów, algebra Boole'a.

Key words: deontic notions, deontic modalities, connection of deontic concepts with the moral values, algebra of sets, the Boolean algebra.

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