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On the Equivalence Between the Calculi MC^{ν} and $EC^{\nu+1}$ of A. Bressan

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Part I General interpretations for the modal language ML^{ν}

1 Introduction The modal calculus MC^{ν} (based on the language ML^{ν}) and the extensional calculus $EC^{\nu+1}$ (based on $EL^{\nu+1}$) are presented and investigated in [2]; and in Section 15 of that work the translation $\Delta \rightarrow \Delta^{\eta}$ of ML^{ν} into $EL^{\nu+1}$ is defined (on the basis of the semantical rules for ML^{ν}). The main result concerning the function η is proved (syntactically) in [2] (Theorem 63.1). The theorem asserts that, for a suitable version of MC^{ν},

(1.1) $\quad \vdash_{\overline{MC^{\nu}}} p$ iff $\vdash_{\overline{EC^{\nu+1}}} p^{\eta}$, for every formula p of ML^{ν}.

Obviously, the only relevant part of (1.1) is the implication from right to left, since its converse is the very goal aimed at in defining η.

Now, in [8] MC^{ν} is proved to be complete with respect to general ML^{ν}-interpretations (cf. Section 3) and an analogous result for $EC^{\nu+1}$ can be easily achieved by adapting the proof of Theorem 2 in [4]. Therefore (1.1) is a trivial consequence of

(1.2) $\quad \models^{g}_{\overline{MC^{\nu}}} p$ iff $\models^{g}_{\overline{EC^{\nu+1}}} p^{\eta}$, for every formula p of ML^{ν},

where $\models^{g}_{\overline{MC^{\nu}}} p$ [$\models^{g}_{\overline{EC^{\nu+1}}} p^{\eta}$] expresses that $p[p^{\eta}]$ is true in every general model of the considered version of $MC^{\nu}[EC^{\nu+1}]$.

In this work the structures of the general interpretations for ML^{ν} and

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