# ON MODELS OF PARACONSISTENT ANALOGUE OF THE SCOTT LOGIC

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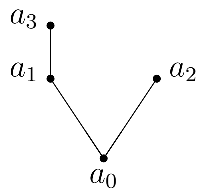
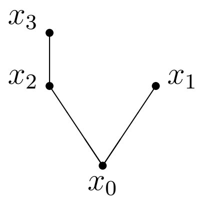
The Scott logic **SL**=**Li**+$\{(\neg\neg p \supset p) \supset p \vee \neg p) \supset \neg p \vee \neg\neg p\}$ (where **Li** is the intuitionistic logic) is one of the first examples of an intermediate logic with the disjunction property. In [1] it was proved that **SL**=**Li**+$X(\mu, \mathcal{D}, \bot)$, where $X(\mu, \mathcal{D}, \bot)$ is the intuitionistic canonical formula with the frame $\mu$:

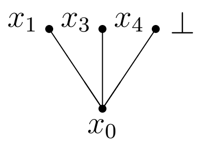



A logic is called paraconsistent if it is not intermediate and does not contain axiom $\neg p$. We study the paraconsistent analogue **Ls**=**Lj**+$\{(\neg\neg p \supset p) \supset p \vee \neg p) \supset \neg p \vee \neg\neg p\}$ of the Scott logic (**Lj** is the minimal logic).

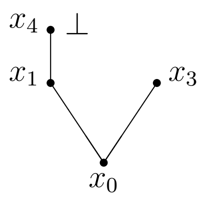
We prove that **Ls**=**Lj**+$J(\eta_1, \mathcal{D}^1)$+$J(\eta_2, \mathcal{D}^2)$+$J(\eta_3, \mathcal{D}^3)$+$J(\eta_4, \mathcal{D}^4)$+$J(\eta_5, \mathcal{D}^5)$, where $J(\eta_1, \mathcal{D}^1)$, $J(\eta_2, \mathcal{D}^2)$, $J(\eta_3, \mathcal{D}^3)$, $J(\eta_4, \mathcal{D}^4)$, $J(\eta_5, \mathcal{D}^5)$ are canonical formulas [2] with



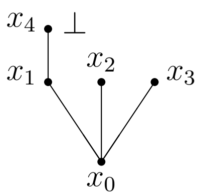

frame $\eta_1$



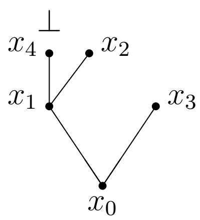

frame $\eta_2$




frame $\eta_3$




frame $\eta_4$




frame $\eta_5$

[1 ] *Chagrov A., Zakharyaschev M.* The undecidability of the Disjunction Property of propositional logics and other related problems // The Journal of Symbolic Logic. – 1993. – Vol. 58, No 3. – P. 967–1002.

[2 ] *Stukacheva M.* On canonical formulas for extensions of the minimal logic // Siberian Electronic Mathematical Reports. – 2006. – Vol. 3. – P. 312–334. `http:// semr.math.nsc.ru`

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