

- JOKE MEHEUS, *An Adaptive Logic for Normative Conflicts*.  
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The aim of this paper is to present a new paraconsistent deontic logic (called **MI**) and its adaptive version **MI<sup>m</sup>**. The monotonic logic **MI** is based on an extremely weak paraconsistent logic, with gluts for the negation, gaps for the disjunction, and gluts as well as gaps for the conjunction. As a result, the principle of ‘modal inheritance’ (if  $\vdash A \supset B$  then  $\vdash OA \supset OB$ ) is invalid in **MI**. So are each of the following rules:  $OA, OB \not\vdash_{\mathbf{MI}} O(A \wedge B)$ ,  $O(A \wedge B) \not\vdash_{\mathbf{MI}} OA$ , and  $OA \not\vdash_{\mathbf{MI}} O(A \vee B)$ .

In the adaptive logic **MI<sup>m</sup>**, the principle of modal inheritance as well as the above mentioned rules are valid for all obligations that behave consistently. When applied to a set of premises that is consistent, **MI<sup>m</sup>** yields all consequences of Standard Deontic Logic. When applied to a set of premises that is inconsistent, the set of consequences is “as rich as possible” without any form of deontic explosion being validated.

I shall present both the semantics and the proof theory of **MI<sup>m</sup>**. The proof theory is dynamical (conclusions derived at some stage of a proof may be rejected at a later stage), but is sound and complete with respect to the (static) semantics. I shall argue that **MI<sup>m</sup>** has several advantages as compared to the existing systems. I shall also show that **MI<sup>m</sup>** leads to the desired results for the examples described in the literature. For instance, in the case of Horty’s Smith example, **MI<sup>m</sup>** enables one to derive  $OS$  from  $O(F \vee S)$  and  $O\neg F$ , and in the case of Goble’s Jones example  $OS$  is **MI<sup>m</sup>**-derivable from  $O(T \wedge (F \vee S))$  and  $O\neg(T \vee F)$ . As Goble observes in [1], none of the currently available deontic systems adequately solves the latter problem. **MI<sup>m</sup>** moreover has the nice property that, whenever  $OA$  and  $OB$  are mutually incompatible,  $O(A \vee B)$  is derivable from them.

[1] LOU GOBLE, *Normative Conflicts and the Logic of Ought*. To appear.