

A NOTE ON METAPHYSICS AND THE
 FOUNDATIONS OF MATHEMATICS

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1 *Introduction* An outline of the class of metaphysics to be associated with the transcendental modal logics F^*F [1] was given in [2]. Concerning the foundations of mathematics and the 'intuitionist-classicist' debate it was implied in [2] that these logics F^*F may help to clarify some of the issues in that debate. However, since paper [2] tended to stress only the critical function of metaphysics in relation to the foundations, in this paper we will focus attention more on the constructive side and indicate, at the same time, a new approach to foundational studies and constructive metaphysics.

From [2] there are essentially two alternative logics from the group F^*F , namely, S^*S and E^*E . Also, the C_2 -indeterminate truth-value occurring in E^*E is associated only with future contingent events (although these may be of different kinds). Hence, if we confine ourselves to mathematics, then the relevant modal logic is S^*S (or the modal predicate logic PS^*S [3]) and consequently the possible area of agreement between the metaphysics M1 and M2 (see [2]) should include the realm of C_2 -beliefs in mathematics generally, and the foundations in particular.

2 *Metaphysics and the Errors* We recall the two principal semantical notions underlying the logics F^*F . From [1], they are:

- A1. C_1 -truth, which means fidelity to the human testament.
- A2. C_2 -truth, which means fidelity to the Divine testament.

A1 and A2 are two old hats. It is hoped that this presentation here will help to make a new one. Many contemporary philosophers may well grimace at our point of departure in [2], section 2, and especially at our 'primitive notions'. Many of these notions will seem outmoded, mere residue of a bygone age, unfamiliar, perhaps even monstrous. Monstrous or no, with or without the grimace, this is the starting point: for our approach there can be no other. It is not new: it is Augustine's starting point.

From our point of view the fault of 'intuitionism' is that it wants to