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INTENDED MODEL THEORY

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The aim of the present paper is to develop a theory of intended models as an extension of standard model theory, using the pragmatics of standard languages [7] to represent the "intending." To this end, new foundations for standard pragmatic theory are formulated in section **1**, and pragmatic theory is further developed in section **2**. Section **3** contains semantic foundations for the theory of intended models of section **4**.

1 *New foundations for standard pragmatics* Standard pragmatics is developed in [7], where it is shown that an algebra of formulas which represents a standard first order predicate calculus may be induced over the expressions over an arbitrary finite alphabet, by appropriate verbal behavior of the users of the expressions. The snytax of the formulas of the algebra, as well as their logical (polyadic Boolean) structure, is induced pragmatically. In the present section it is shown that the part of standard pragmatics which determines logical as distinct from syntactic structure is derivable from two assumptions expressing the rationality of the degrees of belief of the users of the expressions of the syntax.

The primitive terms of standard pragmatics as developed in [7] are a set **L** (of expressions), a set $\mathbf{V} = \{0, 1, 2\}$ (whose elements represent the pragmatic values *reject*, *accept*, and *withhold*, respectively), a set **C** (of conditions under which expressions of **L** are valued in **V**), a set **U** (of users of **L**), and a set **W** (of times of valuation of expressions of **L**). An obvious generalization of the conditions of valuation **C**, although not required for the proof of proposition (1.2) below, is useful for the theory of intended models of section **4**. Intuitively, the generalization consists in accommodating possible as well as actual conditions of valuation of the expressions of **L**. This is accomplished by letting **C** be the domain of a Boolean algebra $\langle \mathbf{C}, \wedge, ' \rangle$, where **C** contains a distinguished element b, distinct from the unit element c_1 and from the zero element c_0 of **C**. Intuitively, a non-zero element of **C** may be regarded as a possible condition of pragmatic valuation, an element $c \geqslant b$ may be regarded as an actual condition of valuation, the unit element of **C** may be regarded as the necessary

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