AN ANALYSIS OF SOME GENERAL PROPOSITIONS*

BY C. H. LANGFORD

1. *Introduction.* General propositions are commonly described as being those propositions which arise from matrices by generalization, that is, as being such propositions as can be derived from some matrix by the attachment of an applicative, "some" or "every," to each variable constituent of the matrix.† In this paper an analysis of general propositions is suggested, which results from a slightly different view of the relations of general propositions to matrices. It appears that the analysis which is suggested involves a generalization of the ordinary analysis.

2. *Unanalysed Propositions.* We may begin with a consideration of elementary matrices whose values are elementary functions of unanalysed propositions, such as, for example, $p \supset q$. Let t_0 denote any elementary proposition. Then we can write, for example, $(t_0).t_0 \vee \sim t_0$, that is, every elementary proposition is true or false. If p_0, q_0 denote elementary propositions, then, of course, $p_0 \supset q_0$ denotes elementary propositions; but this latter, more complex function denotes a narrower range of propositions than does t_0, since whatever is an elementary proposition of the form $p_0 \supset q_0$ must be an elementary proposition of the form t_0, but not conversely. Let t_1 denote any elementary matrix. Then t_1 denotes what denotes elementary propositions; t_1 denotes t_0, $p_0 \supset q_0$, and the like, which denote elementary propositions. Now we can form such functions as $p_1 \supset q_1$, which denote a narrower range of matrices than does t_1.

Since elementary matrices are neither true nor false, we cannot say $(t_1) . t_1 \vee \sim t_1$; but we can say

$$(t_1) : (t_0) . t_0 \vee \sim t_0,$$

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† See *Principia Mathematica*, second edition, vol. 1, p. xxiii.