A REMARK ON A PAPER BY ABIAN

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A recent paper [1] by A. ABIAN has as its main result that the theory of atomless Boolean algebras is not categorical in certain uncountable powers. This is a weak special case of the following known result (see [3]).

THEOREM. *If a theory in the lower predicate calculus has a model with a definable binary relation which linearly orders any infinite subset of that model then it is not categorical in any uncountable power K .*

In particular, no extension of the theory of Boolean algebras can be categorical in any uncountable power.

For a wide class of cardinals K the above theorem was proved earlier by EHRENFUCHT [2]. See also footnote 18 of [3].

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References

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- [3] M. MORLEY, Categoricity in power, *Trans. AMS*, **114** (1965), pp. 514—538.