

# Predicate Exchangeability and Language Invariance in Pure Inductive Logic

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In Pure Inductive Logic, the rational principle of Predicate Exchangeability states that permuting the predicates in a given language  $L$  and replacing each occurrence of a predicate in an  $L$ -sentence  $\varphi$  according to this permutation should not change our belief in the truth of  $\varphi$ . In this paper we study when a prior probability function  $w$  on a purely unary language  $L$  satisfying Predicate Exchangeability also satisfies the principle of Unary Language Invariance.

Key words: Predicate Exchangeability, Language Invariance, Inductive Logic, Probability Logic, Uncertain Reasoning.