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Separable and additive representations of Binary Gambles of Gains

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It is easy to axiomatize a ranked-additive representation of consequence pairs (x, y) in binary gambles (x,C;y) of gains with C held fixed, and independently a separable one of (x,C;e), where e denotes the status quo. Assuming these axiomatizations and the behavioral property of event commutativity, a new representation, called "rational rank-dependent utility", is derived. We report three behavioral conditions that force this representation to reduce to the standard rank-dependent expected utility one for gains. They are co-monotonic consistency, ranked bisymmetry, and segregation, the latter requiring the addition of an operation of joint receipt.