A number of classical as well as quite new utility representations for gains are explored with the aim of understanding the behavioral conditions that are necessary and sufficient for various subfamilies of successively stronger representations to hold. Among the utility representations (where * denotes something new in this article) are: additive, weighted, rank-dependent (which includes cumulative prospect theory as a special case), subjective expected, and independent increments*. Among the key behavioral conditions are consequence monotonicity, idempotence, status-quo event commutativity*, coalescing, gains decomposition, and component summing*. The structure of relations is sufficiently simple that certain key experiments are able to exclude entire classes of representations. For example, the class of rank-dependent utility models is very likely excluded because of empirical results about the failure of coalescing.

Key Words: coalescing, component summing, event commutativity, gains decomposition, utility representations

Economics Classification: D46, D81