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Joint Receipt and Thaler's Hedonic Editing Rule

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We consider a rule of "hedonic editing" suggested by R. H. Thaler and others to describe how people evaluate the joint receipt of two separate quantities of a real variable x. Let U be a continuous and increasing utility function on x. We refer to x r 0 as a gain, x s 0 as a loss, fix U(0) = 0, and denote by x&y the joint receipt of x and y. The hedonic editing rule says that U(x&y) = max{U(x+y), U)x) + U(y)} so that U(x&y) is the larger of the utility of the integrated sum of and y, and the sum of the utilities of x and y considered separately. The paper explains structures of U constrained by hedonic editing. Two main cases are analyzed. Case (I) assumes that U is concave in gains and convex in losses. Case (II) assumes that is concave separately in gains and in losses. Each main case divides into six subcases according to the limiting relations among the slopes of at q0 and ql. these partition the behavior of U in the mixed (x>0, y<0) joint-receipt region into two subregions of integration and segregation. The paper also axiomatizes the cases with assumptions about (R,&,r) from which a suitable U can be constructed. Each main case uses a few axioms satisfied by all its subcases. Special axioms are then invoked for the different subcases.