

**Private Costs and Public Benefits:
Unraveling the Effects of Altruism and Noisy Behavior**

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Abstract. An increase in the common marginal value of a public good has two effects: it increases the benefit of a contribution to others, and it reduces the net cost of making a contribution. These two effects can be decomposed by letting a contribution have an "internal" return for oneself that differs from the "external" return to someone else (Carter et al., 1992). We use this framework in a series of one-shot public goods games in which subjects make choices in ten treatments with no feedback. Contributions are generally increasing in the external return and group size, which suggests that altruism in this context is not simply of the "warm glow" variety, i.e. giving only for the sake of giving. Contributions are also increasing in the internal return, indicating that decisions are sensitive to the costs of helping others. We specify a logit equilibrium model in which individuals are motivated by own and others' earnings, and in which choice is stochastic. Maximum likelihood estimates of (representative-agent) altruism and logit parameters are significant and of reasonable magnitudes, and the resulting two-parameter model tracks the pattern of contributions across the ten treatments. A richer model reveals some differences in individual altruism coefficients, with more dispersion among male subjects.

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