

Title: Competition for Trophies Triggers Male Generosity

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Abstract: Reciprocal altruism (Trivers, 1971) is an established evolutionary pathway for cooperation in groups. Used to explain human male hunting and sharing behavior, it suggests that short-term costs of sharing a large kill are more than offset by favors beneficiaries provide in the future. However, some have argued that reciprocity is not likely through food sharing (Hawkes et al, 2001) but rather that people reciprocate by offering status to successful hunters. The argument is that a hunter generates group benefits by making a large kill, and that kill becomes a visible trophy of achievement for which one is awarded status along with the attendant deferential treatment. In this sense, status is the “currency” of reciprocity (Hawkes and Bird, 2002). If so, males could have an evolved willingness to incur costs to provide benefits to groups when doing so can result in status or proximate causes of status (trophies). Surprisingly, while important results have been obtained about the role of competition in promoting charitable giving, and similarly much is now understood regarding gender effects in competitiveness, we are aware of no direct evidence on the role of competitive trophy-seeking behavior in promoting male generosity. Here we report data from a laboratory experiment that fills this gap. We conduct public goods games in three treatments. In all treatments participants observe each others’ level of investment in the public good, and can then send non-monetary approval points to their group members. In the baseline treatment there are no consequences to receiving approval; in a second treatment those who receive highest approval in the group win an electronic “star” which has no monetary value and can neither be displayed to others nor removed from the laboratory; the third treatment is just like the second, except each “star” increases the chance that the subject will receive a trophy (a coffee mug with low monetary value) at the conclusion of the experiment. We find that group cooperation falls below baseline when “stars” are awarded without trophies. However, with trophies group cooperation is sustained at levels significantly above baseline. We trace the source of this effect to (i) a significant increase in unconditional male generosity when a trophy can be won and (ii) conditional cooperation by females that further enhances group welfare. The gender differences we uncover suggest that competitive trophy-seeking by males, with victors awarded status, might have been an important evolutionary mechanism promoting cooperation in small groups. Moreover, that same mechanism could perhaps help to explain the puzzle of cooperation in large groups.