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The Role of Emotions in Public Goods Games with and without Punishment Opportunities

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Abstract

We consider the emotional correlates of activity in the Public Good game when monetary and non-monetary punishments are available, and when no punishment is possible. In our experiment, emotions are measured using Face Reading software that tracks the emotional content of facial expressions in real time. When no punishment is possible, greater anger and more negative emotional valence correlate with learning that one has contributed more than others. Lower valence and happiness, in turn, is associated with reducing one's cooperation in the next period. When non-monetary punishment in the form of expressed disapproval is possible, positive emotional valence is associated with cooperation, punishment of free-riders, and an increase in cooperation from one period to the next. Negative valence, on the other hand, is associated with the receipt of punishment, suggesting that the expression of disapproval inherent in the non-monetary punishment was well understood and had an effect on the emotions of the recipient. The data support the conjecture that the reinforcement that positive emotion provides is what allows non-monetary punishment to increase cooperation. In contrast, when monetary punishment is available, emotional correlates are less consistent, suggesting that monetary punishment is less reliant on emotions to be effective. Instead, it appears to increase cooperation solely by reducing the monetary incentives to free-ride.