THE SO-CALLED "PRISONER'S DILEMMA, AN EXAMPLE FROM GAME THEORY COMMONLY USED TO DISCUSS SOCIAL RECIPROCITY.

PLAYER 2

(what you do)

	Cooperate	Defect
Cooperate	(I get my ticks removed but also pay the cost of removing yours) **R** Reward for mutual cooperation (small jail sentence) 3 points	(I don't get my ticks removed but pay the cost of removing yours) **S** The "sucker's" payoff (life in jail) 0 points
Defect	(I get my ticks removed and I don't pay the cost of removing yours) **T** Temptation (reward for defecting) (no jail time) 5 points	(I keep my ticks with the small consolation of not removing yours) **P** Punishment for mutual defection (fairly severe jail sentence 1 point

PLAYER 1

(what I do)

$$T > R > P > S$$

Note 1: The jail sentences are typical of the actual prisoner's dilemma [when prisoners are questioned separately and are tempted to confess or help the police -- meaning to defect or cheat -- without knowing what your partner (the other player) is going to do]; points shown are the payoffs Axelrod used to play (iterate in a computer) tit-for-tat (meaning to do whatever the other guy does, after the first "play") as social reciprocity.

Note 2: The statements about ticks are intended to apply to any animals involved in mutual grooming, and are taken from Dawkins. Connor argues it may not work as tit-for-tat in the sense of reciprocity because, under parceling, $T < R$. Connor's argument asks when what looks like social reciprocity in nonhuman organisms really is that, and when it is a kind of cooperation or mutualism that does not admit or favor complex mental strategies of the human sort.

<u>References</u>

Dawkins, R. 1989. *The Selfish Gene*. 3rd edition. Oxford University Press.

Axelrod, R. 1984. *The Evolution of Cooperation*. New York: Basic Books.

Frank, R. H. 1988. *Passions within Reason: The Strategic Role of the Emotions*. New York: W. W. Norton.