

Abstract

Emotions are feelings like anger, jealousy, and love that arise spontaneously. Although they would not appear to be products of rational calculation, that view has recently been challenged by analysts from several different disciplines. A game-theoretic model is developed to analyze structural features of *frustration*, which is engendered by a player's being in an unsatisfying situation and feeling an inability to escape it because of a lack of control.

Of the 78 distinct 2 x 2 strict ordinal games of conflict, 57 are "conflict games" that contain no mutually best outcome for the players. Of these, 12 are "frustration games," in which the choice of a dominant strategy by one player inflicts the two worst outcomes on the other (frustrated) player; six are "self-frustration games," in which it is the player with the dominant strategy who is frustrated by the best response of the other player. Altogether, there are 17 different games of frustration or self-frustration (one is common to both classes), which is 30% of all the conflict games.

In four of the 12 frustration games, the frustrated player can, if it has "threat power," gain some relief, which is illustrated by Aristophanes' play, *Lysistrata*, in which the frustrated women induced the men to stop fighting by abstaining from sex. In the six self-frustration games, the player with the dominant strategy can always induce a better outcome, called a "nonmyopic equilibrium," based on the "theory of moves." Shakespeare's *Macbeth* illustrates how a self-frustrated Lady Macbeth incited her husband to kill King Duncan by choosing her dominated strategy. In both cases, the frustrated and self-frustrated players, who start out at inferior outcomes, move initially to still worse outcomes—and explode in anger—to effect better outcomes. Conditions are given for the rationality of such moves.