

1086-91-1092 **Cameron Parker*** (cparker@sandiego.edu), 5998 Alcala Park, San Diego, CA 92110. *The Influence Relation for Ternary Voting Games.*

Although simple games are very useful in modeling decision-making bodies, they allow each voter only two choices: to support or oppose a measure. This restriction ignores that voters often have the ability to abstain from voting, which is effectively different from either of the other two options. In this talk, we will look at the extension of the influence relation for simple games to ternary voting games (games in which the players have three voting options) and show that the influence relation orders the voters the same way as an extension of the classical Banzhaf and Shapley-Shubik indices. Also we will show that the addition of a third voting option has the effect of allowing for all asymmetric distribution of power, even ones that cannot be achieved by any simple game. (Received September 18, 2012)