1086-91-1969 **Scott G McCalla*** (smccalla@ucla.edu), **P J Brantingham** and **M B Short**. *The effects of sacred value networks within an evolutionary, adversarial game.*

The effects of personal relationships and shared ideologies on levels of crime and the formation of criminal coalitions are studied within the context of an adversarial, evolutionary game. Here, "sacred value networks" are interpreted as connections on a graph of N players. We explore the effects on the dynamics of the system that these networks introduce, through various forms of protection from both victimization and punishment. Under local protection, these networks introduce a new fixed point within the game dynamics, which we find through a continuum approximation of the discrete game. Under more complicated, extended protection, we numerically observe the emergence of criminal coalitions, or "gangs". We also find that a high-crime steady state is much more frequent in the context of extended protection networks, in both the case of Erdős-Rényi and small world random graphs. (Received September 24, 2012)