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Effect of Spatial-Dependent Utility on Social Group Domination NATHANIEL RODRIGUEZ, ANDREW MEYERT-HOLEN, University of Redlands — The mathematical modeling of social group competition has garnered much attention. We consider a model originated by Abrams and Strogatz [Nature 424, 900 (2003)] that predicts the extinction of one of two social groups. This model assigns a utility to each social group, which is constant over the entire society. We find by allowing this utility to vary over a society, through the introduction of a network or spatial dependence, this model may result in the coexistence of the two social groups.

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