Towards the Heider balance - asymmetric social relations
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Removal of cognitive dissonance by classification of individuals as en-
emies or friends has been modeled with a set of differential equations (K.
Kulakowski et al, IJMPC 16 (2005) 707). Under this dynamics, interper-
sonal relations tend to the structural balance, where the group is divided
into two parts, mutually hostile but internally friendly. Here we genera-
lize the model by releasing the condition on symmetry (reciprocity) of
interpersonal relations. Sets of new stationary states are identified, con-
sisting of at most four parts; four types of neighborhood of nodes in the
network. Within each set, the states differ only in the numbers of actors
of a given type of neighborhood. For each set, conditions of stability are
specified. The results are interpreted within the Cooley theory of self-
looking glass. In particular, a new index of self-acceptance is proposed.
The results can be of interest for teachers and class tutors. More details