Abstract: The role of Simpson’s paradox effects on cooperation in one-shot intra- and inter-group Prisoner’s Dilemma games is explored. Three experimental conditions are considered in a between-subject design – a group that plays games only within the group (intra-group condition), a group that plays games only with members of the other group (inter- group condition), and a group which plays a combination of intra-group and inter-group games (mixed condition). It was found that cooperation in the intra-group games in the mixed condition is higher than cooperation in the intra-group pure condition which can be an effect of the Simpson’s paradox effect. The results are discussed in the light of the earlier findings of Chater, Vlaev, & Grinberg (2008) where similar results were obtained in a different context.