**Appendix D: Supplementary References to Footnotes 8 and 9**

1. Supplementary References to Footnotes 2 and 8: Mixed Decision-Maker Environment

The existing literature—including this study—focuses on the single-type decision-maker environment in which *all* decision-makers are either individuals or groups. Some notable recent exceptions, however, introduced mixed decision-maker treatments and compare them to all-individuals and all-groups treatments.

Wildschut et al. (2007) finds that in a prisoner’s dilemma, behavior is most competitive in the group vs. group condition, least competitive in the individual vs. individual condition, and in between in the group vs. individual condition. Morgan and Tindale (2002), however, does not find the same result in their study of the prisoner’s dilemma with the individual vs. individual, group vs. group, and group vs. individual treatments. Using a 2x2 design for the trust game that allows the trustor and trustee both to be either individual or groups, Kuglar et al. (2007) finds that group trustors behave the same when playing against individual and group trustees, and group trustees also behave the same when playing against individual and group trustors.

Abbink et al. (2010) reports a repeated contest experiment that involves one individual playing against another individual, one individual playing against a four-member team, and a four-member team playing against another four-member team. They find that both teams and individuals adjust their behavior depending on their opponent’s choice when their opponent is an individual but not when their opponent is a team, and they suggest that this may reflect decision-makers conjecture that a team opponent will display more erratic and inconsistent behaviour than an individual opponent. Ahn et al. (2011) reports repeated contest games with very similar design as Abbink et al. (2010) but with five-member teams, and finds that individuals did not alter their behaviour based upon being matched with individuals or teams.

All of these studies consider two-player games, and the three-player CR game allows for a rich possibility of different mixed decision-makers environments that can be investigated in future studies.

Some studies do not directly compare behavior in a mixed decision-maker environment to the behavior in a single-type decision-maker environment, but instead vary the size of the groups involved to study the effect of changing group sizes. Sutter (2005) finds that in a beauty-contest game played by an individual, a two-member team, and a four-member team, teams with four members outperform teams with two members and single persons significantly, but the two-member teams and individuals do not perform differently. Bornstein et al. (2008) conducts a repeated Bertrand price competition experiment played between two individuals, two two-member groups, and two three-member groups. They find that individuals are better able to achieve a high collusive price than groups, while there is no difference in the price across the two-member and three-member group treatments.

Herbst et al. (2014) consider endogenous alliance formation in contests that involve a mixed decision-maker design. Their experiment considers both a contest played by three individual players, as well as an environment in which two of the three individual decision-makers can endogenously form an alliance, and then the contest will be played between one individual and a two-member alliance. They find that subjects who expend higher-than-average efforts when acting as an individual, choose to stand alone instead of joining an alliance.

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2. Supplementary References to Footnote 9: Individual versus Group Play in Repeated Games

While the literature that compares individual and group behavior in games is sizable, most existing work conducts this comparison for one-shot games. Some recent notable exceptions exist. Abbink et al. (2010) finds that groups are more competitive and invest more in their finitely repeated experimental contest game. The work by Ahn et al. (2011) discussed in section 1 of this appendix also compares individual and group play in repeated contest games. Kroll et al. (2013) finds that in the finitely repeated prisoner’s dilemma, “representative democracy” groups in which group members elect a representative among competing candidates to represent them are more cooperative than individuals. In Kagel and McGee (2014), decision-makers play multiple finitely repeated prisoner’s dilemma. They find that teams cooperate less than individuals in the first repeated PD. However, after the first repeated PD, teams cooperate at the same or higher levels than individuals, with significantly higher levels of cooperation in later repeated games.

As discussed in section 1 of this appendix, in their repeated Bertrand price competition game experiment, Bornstein et al. (2008) finds that individuals are better able to achieve a high collusive price than groups, while there is no difference in the price across the two-member and three-member group treatments. In contrast, Müller and Tan (2013) finds thatgroups behave more collusively than individuals in a finitely repeated Stackelberg quantity competition game.

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