Receivers' acceptance drives the generosity of dictators in a dictator game with partner selection

<u>Ioannis Zisis</u>^{α}, Sibilla Di Guida^{β}, The Anh Han^{γ}, Georg Kirchsteiger^{δ,ϵ} and Tom Lenaerts^{α,ζ}

- $^{\alpha}$ MLG, Université Libre de Bruxelles, Brussels, Belgium
- $^{\beta}$ COHERE, Syddansk Universitet, Odense, Denmark
- $^{\gamma}$ School of Computing, Teesside University, Middlesbrough, UK
- $^{\delta}$ ECARES, SBS-EM, Université Libre de Bruxelles, Brussels, Belgium

^ζ AI lab, Vrije Universiteit Brussel, Brussels, Belgium

(e-mail: jzgreek23@gmail.com)

In our work [1] we use a stochastic evolutionary model to analyse the experimental results of a modified Dictator Game, in which the standard Dictator Game is played after a partner selection phase. During this phase, receivers get information about the dictators' past actions to decide whether to play the game with the matched dictator. As in the Ultimatum Game, this game combines fairness and strategic concerns. But now the latter concern is associated with being accepted in future rounds of the game as opposed to an immediate encounter. Although the average behaviours in this game can be approximated by specific parameter settings of a stochastic evolutionary model, as was argued recently [2], we observe that this model has difficulties in reproducing the strategy distributions when using only selection strength and mutation rate to fit the data. By explicitly modeling the dictators' future acceptance probabilities and introducing a new, system-wide parameter that tunes the importance of the future gains for the fitness of the dictators, we show that more consistent results for all our experimental results can be obtained. This parameter has the important advantage that explains where the dictators' generosity comes from: Securing future acceptance is key to success in this type of games.

[1] I. Zisis, S. di Guida, T.A. Han, G. Kirchsteiger and T. Lenaerts; Receivers' acceptance drives the generosity of dictators in a dictator game with partner selection, under review (2015).

[2] D.G. Rand, C.E. Tarnita, H. Ohtsuki and M.A. Nowak; Evolution of fairness in the one-shot anonymous Ultimatum Game, PNAS 110 no. 7, 2581-2586 (2013).

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