

COMP6026: Assignment 2

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1 Introduction

1.5 pages

In this paper we reimplement the result of [Watson 2009] TODO , and show that [their conclusion holds]. We then present the results of further analysis, which show that [my hypothesis is proven correct].

2 Reimplementation

2.1 Representation

For an efficient and quick algorithm, correct representation is important. First we did this then we did this. Allowed quick computation, hooray.

2.2 Parameters

We used the parameters as in the original paper, plus these [table] Parameters: Value Growth rate (cooperative), G_c 0.018 Growth rate (selfish), G_s 0.02 Consumption rate (cooperative), C_c 0.1 Consumption rate (selfish), C_s 0.2 Population size, N 4000 Number of generations, T 1000

2.3 Results

1 page

3 Extension

1 page

| | | | | |
|----------------------|-------------|---------|--------------------------|-------|
| Behaviour parameters | Cooperative | Selfish | Global parameters | Value |
| Growth rate | 0.018 | 0.02 | Population size, N | 4000 |
| Consumption rate | 0.1 | 0.2 | Generations, T | 120 |
| Size parameters | Large | Small | Reproduction cycles, t | 4 |
| Group size | 40 | 4 | Death rate, K | 0.1 |
| Resource influx | 50 | 4 | | |

Table 1: Parameters from [1], used throughout the reimplementaion.

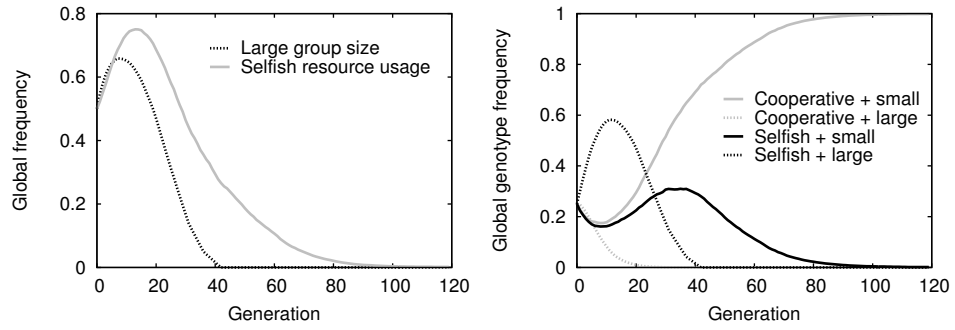


Figure 1: My plot.

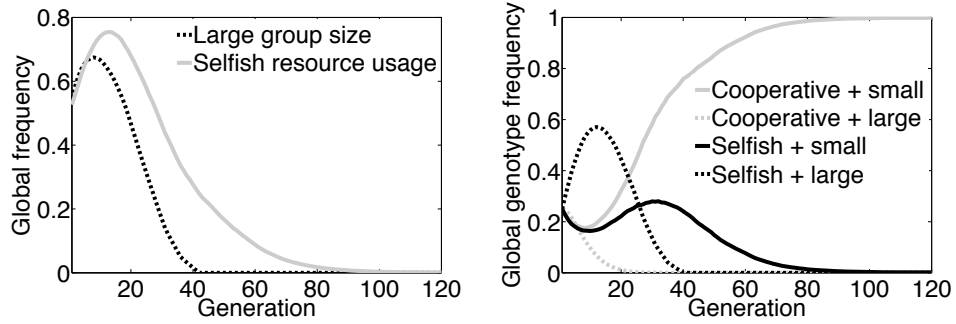


Figure 2: original plot.

3.1 Representation

3.2 Results

1.5 pages

4 Conclusion

1 page

References

References

- [1] Powers, S., Penn, A., Watson, A.: Individual Selection for Cooperative Group Formation. Advances in Artificial Life: Proceedings of the Ninth European Conference on Artificial Life (ECAL 2007) (2007) 585–594

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