The role of agency in a focus-divide dilemma: Can I make better decisions for others than I can for myself?

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Background

○ Prioritising resources such as time or money between competing tasks is a frequent dilemma
○ the focus-divide dilemma: an experimental prioritising paradigm involving preparing to complete two equally likely tasks which vary in difficulty
○ optimal strategy: focus when difficult, divide when easy
○ Previous findings: failure to follow the optimal strategy, apart from when decisions are made on behalf of a virtual avatar
○ The role of agency: Deciding and executing the subsequent task may distract from improvements to strategy
○ Deciding on behalf of another agent may improve focus-divide decisions

Empirical data from three focus-divide experiments

Simulated adjustment effect (Difficult-Easy)

Directors versus Throwers

Pilot

○ Directors (n=19) vs Throwers (n = 12, data from Clarke & Hunt, 2016)
○ Directors data were compared to the original Throw task dataset
○ Findings: Strong evidence in favour of a Director’s advantage

Adjustment:
Subtracting model predicted position when Far-Close indicates adherence to the optimal strategy (1 = optimal).

Main experiment

○ Directors vs Throwers (total n = 45, determined by power analysis)
○ Three conditions:
  ○ Direct > Throw
  ○ Throw > Direct
  ○ Throw > Throw
○ Findings:
  ○ No difference between conditions: the order of exposure made no difference
  ○ No directors advantage: restriction of agency did not improve decisions

Conclusions

Why did we fail to replicate?
Large between-individual variation/cohort effect comparing between groups in experiment 1, vs larger N and within-subjects comparisons in E2
Future avenues
Outcome uncertainty / more realistic focus-divide scenarios

References


Note. Point intervals are the 95% median HDI

Figure. Schematic of the Throwing task used in the experiments