Reward Contrast Effects on Timing and Impulsive Choice Behavior

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Introduction

• Previous research has shown that reward magnitude changes affect timing behavior on both the temporal bisection task and peak procedure (Galtress & Kirkpatrick, 2009, 2010).

• Given that impulsive choice procedures often involve changes in reward magnitude coupled with delays to reward, it is possible that reward-timing interactions could affect choice behavior.

• The current experiment sought to assess the effects of reward magnitude increases and decreases in impulsive choice and timing behaviors.

Method

Impulsive Choice SS vs. LL Magnitudes

<table>
<thead>
<tr>
<th>Group</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>LLI Increase</td>
<td>1v1</td>
<td>1v2</td>
<td>1v1</td>
</tr>
<tr>
<td>SSD Decrease</td>
<td>2v2</td>
<td>1v2</td>
<td>2v2</td>
</tr>
<tr>
<td>SSI Increase</td>
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<td>2v2</td>
<td>1v2</td>
</tr>
</tbody>
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Discussion

• The initial reward magnitude conditions, coupled with the nature of the reward contrast (LLI vs. SSD) produced effects on choice, timing and response rate measures (see also Galtress, Garcia, & Kirkpatrick, 2012).

• Provides implications for future research as initial testing parameters may permanently bias behavior.

• The results also indicate that reward-timing interactions may contribute to impulsive choice.

References

