Testing the Influence of Winning in Social Casino Games (and Impulsivity) on the Decision to Gamble

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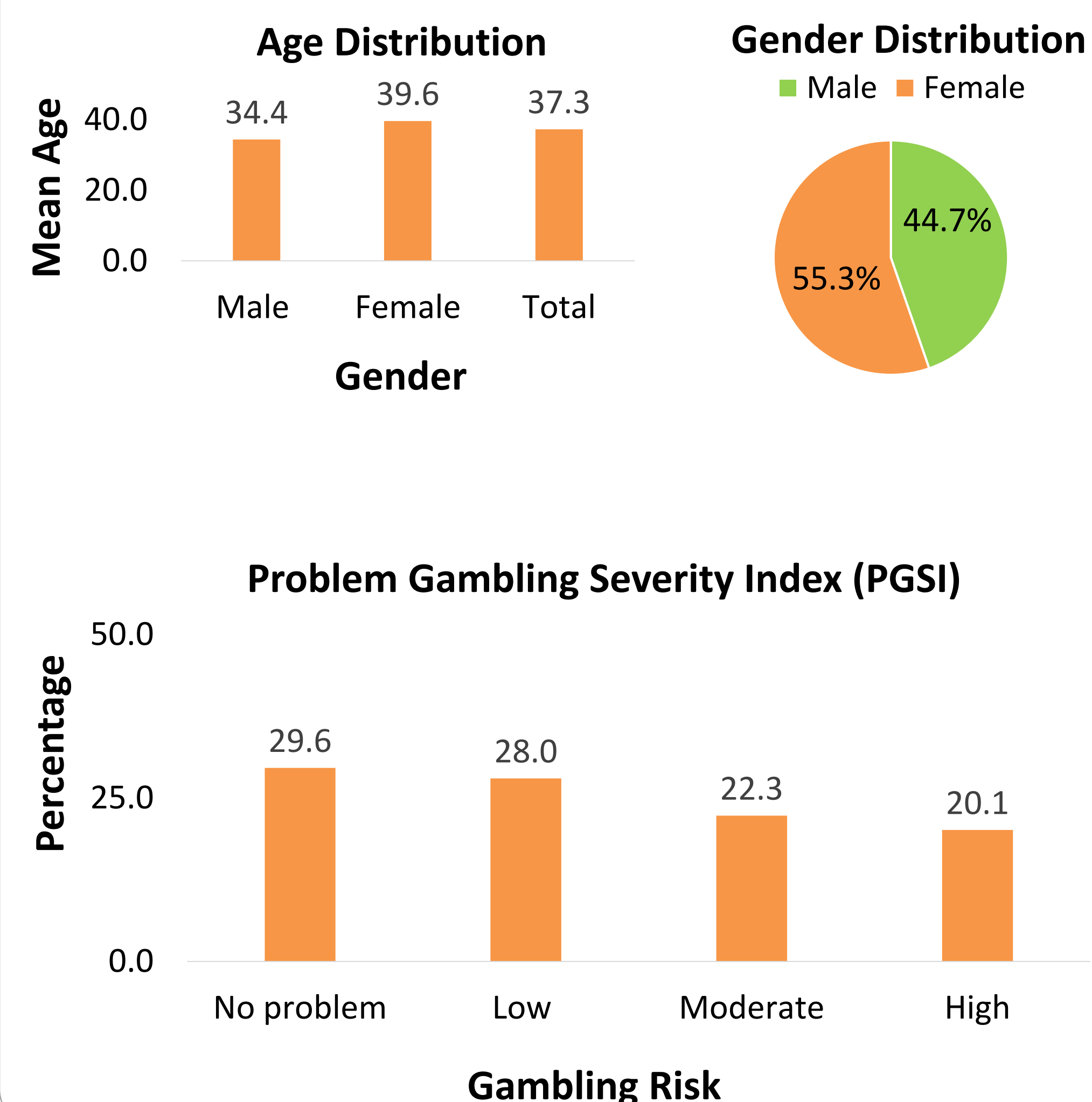
Introduction

- Social casino games are free-to-play, online games that simulate the look, feel, and playing experience of gambling, however; players wager virtual credits instead of real money (e.g., Slotomania, Zynga Poker).

- It is currently estimated that there are more than 81 million daily players, and these games continue to gain popularity.

- Social casino games have been found to be a potential 'gateway' to gambling and may increase future gambling among those who already engage in real money gambling.

- In focus groups with young adult online gamblers, the experience of frequent wins (i.e., inflated payout rates) in social casino games were identified as a potential factor that influenced the transition to online gambling.

- Impulsivity has also been suggested as an important factor in the social casino gaming-gambling link.

Hypotheses

(H1): When compared to the break-even and losing conditions, participants assigned to the winning condition will be more likely to choose to gamble following social casino game play.

(H2): Social casino gamers who elected to gamble following social casino gaming will report higher levels of negative urgency (i.e., the tendency to act rashly under intense negative emotions) compared to those who do not.

Participant Characteristics

Age Distribution — Mean Age: Male 34.4, Female 39.6, Total 37.3

Gender Distribution — Male 44.7%, Female 55.3%

Problem Gambling Severity Index (PGSI) — No problem 29.6, Low 28.0, Moderate 22.3, High 20.1

Methods

Sample

- Current social casino gamers who also engaged in gambling were recruited using Amazon's Mechanical Turk (MTurk, a crowdsourcing platform).

- Participants (N = 318) completed self-report questionnaires and played a social casino game called Lucky Lolly Slots for approximately 10 minutes (a minimum of 90 spins).

- Participants were unknowingly randomly assigned to one of three experimental conditions where by the 90th spin, they reached:
  - 115% of their starting credit (winning condition; n = 110)
  - 100% of their starting credit (break-even condition; n = 105)
  - 85% of their starting credit (losing condition; n = 103)

- Participants received $3.00 for completing these tasks and were then offered a chance to gamble with their payment in an online game called Lucky Roulette at a rate of $0.01 per credit.
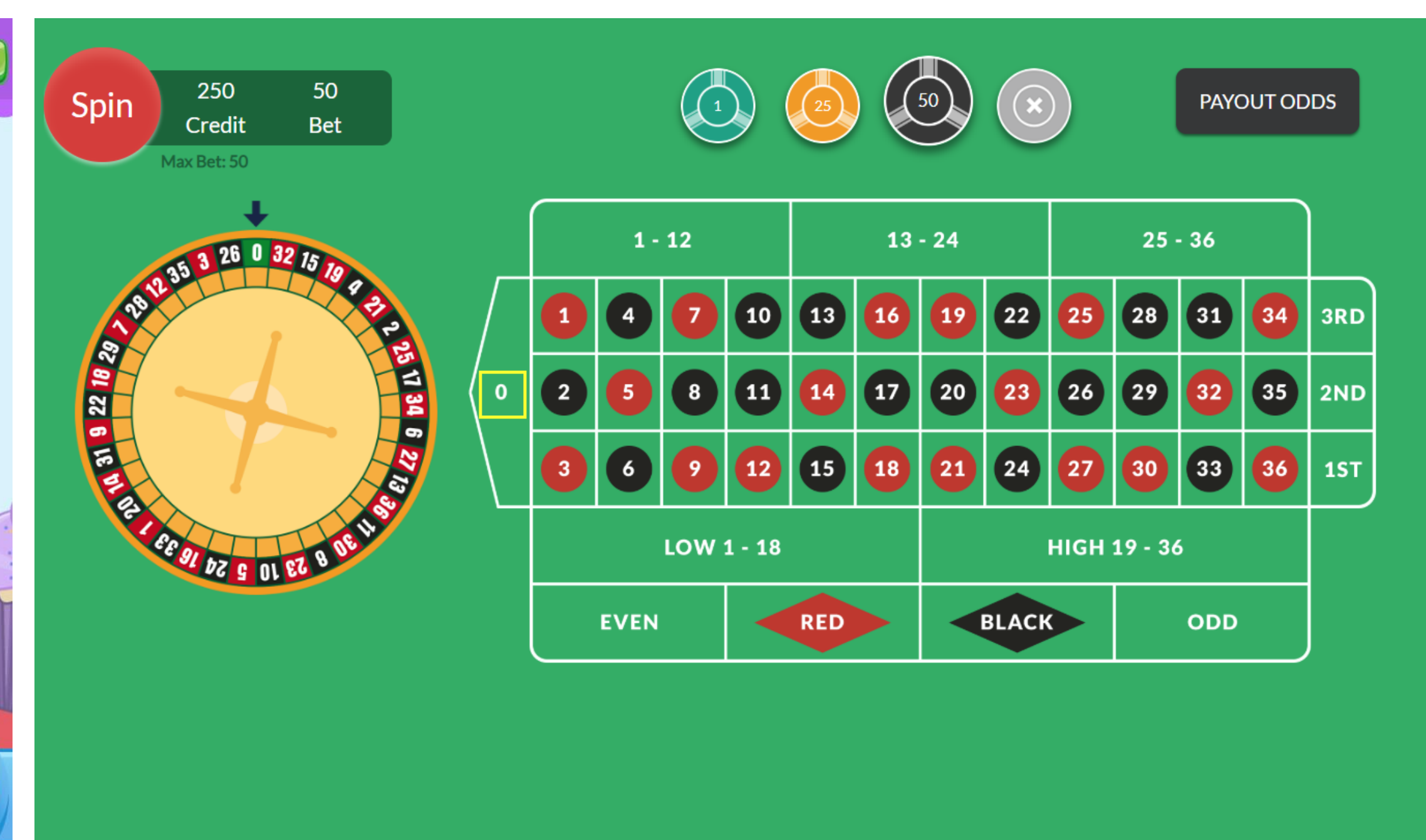

Figure 1: Lucky Lolly Slots

Figure 2: Lucky Roulette

Results: Gambling Outcomes

Decision to Gamble after Playing Lucky Lolly Slots — Gambled / Did not gamble:
- Winning condition: 88.2 / 11.8
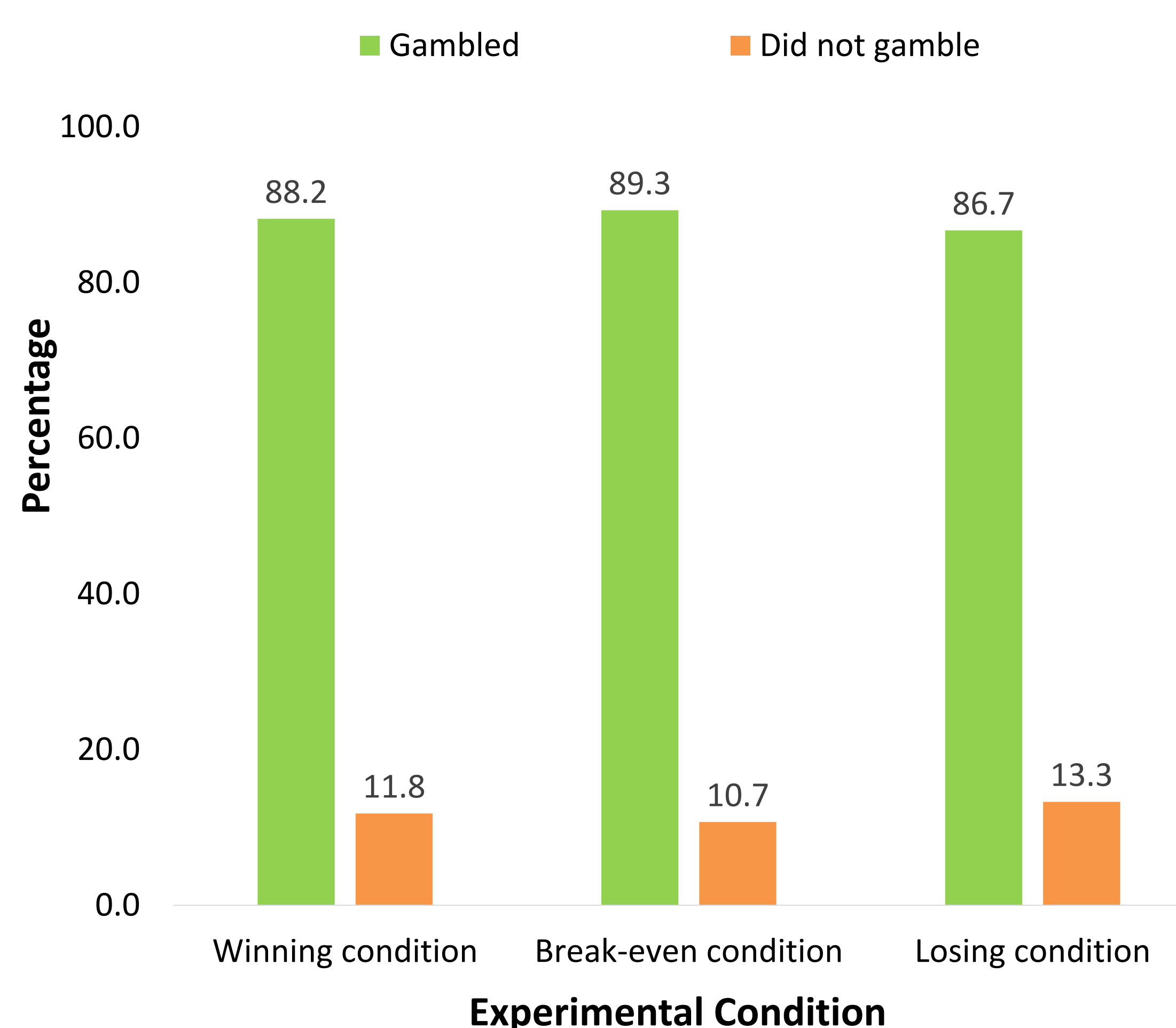- Break-even condition: 89.3 / 10.7
- Losing condition: 86.7 / 13.3

Figure 3: The percentage of participants who did and did not gamble after playing Lucky Lolly Slots. χ^2 (2, N = 318) = 0.351, p = .839.

Roulette Wager Amounts — Highest single wager / Total amount wagered:
- Winning condition: 35.6 / 209.6
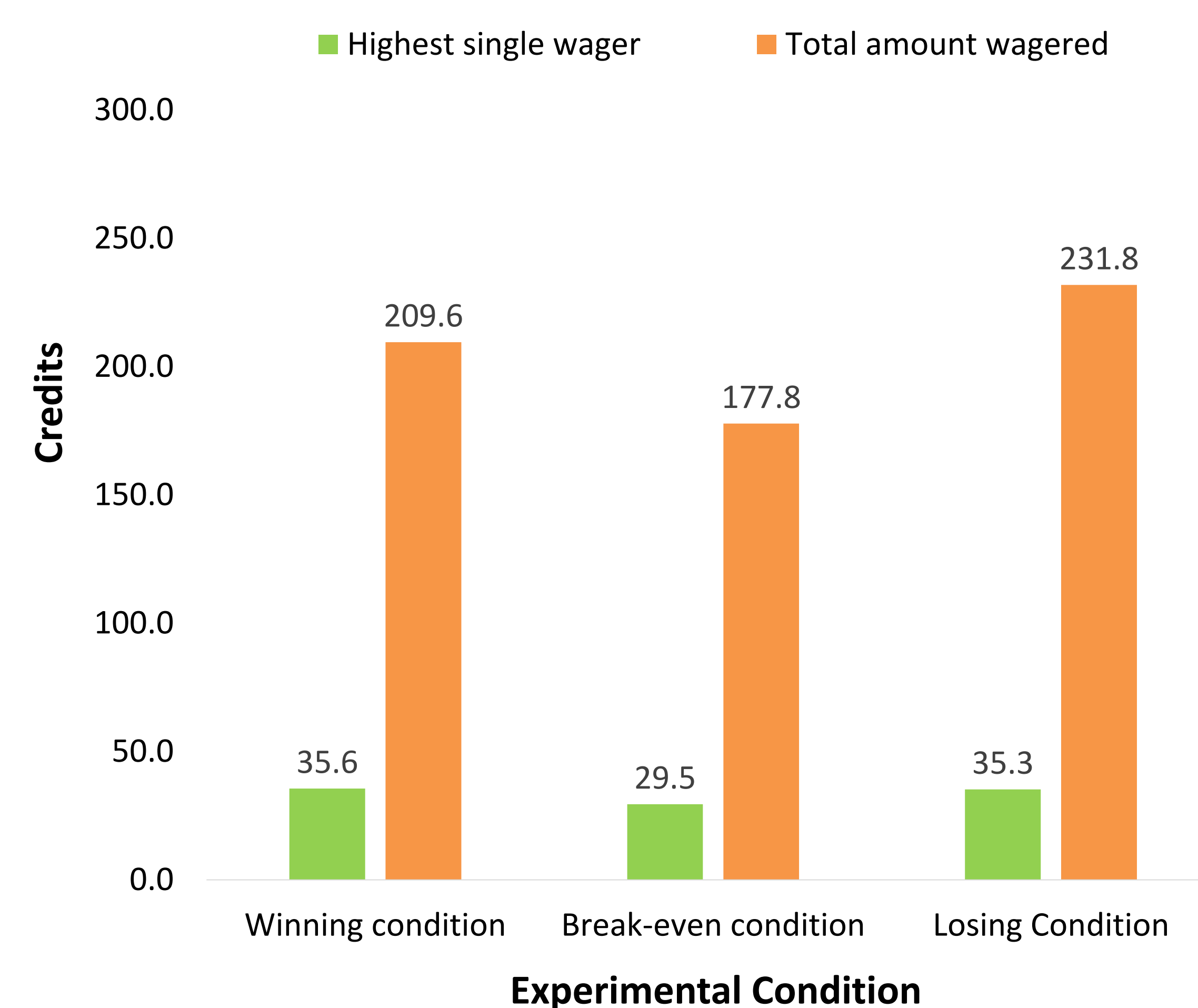- Break-even condition: 29.5 / 177.8
- Losing Condition: 35.3 / 231.8

Figure 4: The average highest single wager on a single spin during roulette [$F(2,277)$ = 2.548, p = .080], and the average total number of credits wagered during an entire game of roulette [$F(2,277)$ = 0.538, p = .585].

Results: Impulsivity

UPPS-P Impulsivity Scores — Gambled / Did not gamble:
- Negative Urgency: 2.4* / 2.1
- Positive Urgency: 2.1* / 1.8
- Lack of Perseverance: 1.6 / 1.5
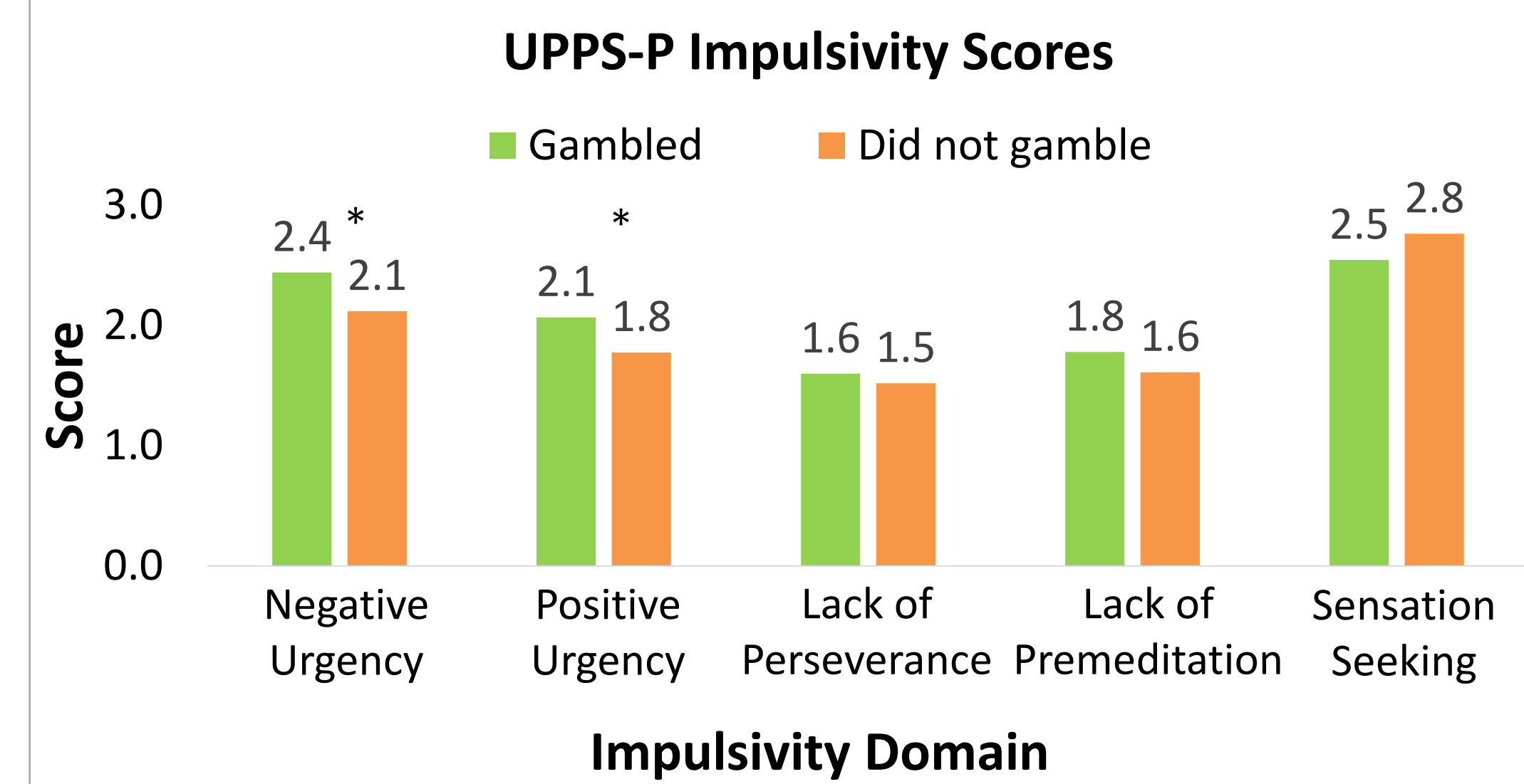- Lack of Premeditation: 1.8 / 1.6
- Sensation Seeking: 2.5 / 2.8

Figure 8: The mean scores across five domains of impulsivity based on whether participants decided to gamble their compensation. *Denotes a significant difference between groups, p < .05.

Summary, Limitations, and Future Directions

- Failing to confirm hypothesis 1, participants in the winning condition were not more likely to choose to gamble. This may be because the majority of participants (i.e., 88.1%) decided to gamble.

- In line with hypothesis 2, participants who chose to gamble after social casino gaming reported higher negative urgency scores.

- Participants who gambled also scored higher in positive urgency. This finding is consistent with recent research suggesting that positive affect may be also a risk factor in influencing gambling behaviours.

- The results suggest that social casino games may influence future gambling behaviors amongst players who may be particularly vulnerable to the lures of gambling (i.e., those who are high in urgency, a facet of impulsivity).

- A limitation of this research was the amount of money participants were given to gamble with. Although $3.00 is a relatively high payment for MTurk studies, it is still a low amount to wager. This may be a reason for the large number of participants who chose to gamble. Thus, future studies should examine the influence of social casino gaming on the decision to gamble with higher stakes involved.

- Future research could also examine the influence of winning in social casino games on the desire to gamble among people who play social casino games but do not otherwise gamble for real money.