CENTRE for GAMBLING RESEARCH at UBC

An online gambling intervention using the realization effect

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The New Horizon Conference 2022

a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA
Department of Psychology

Objectives

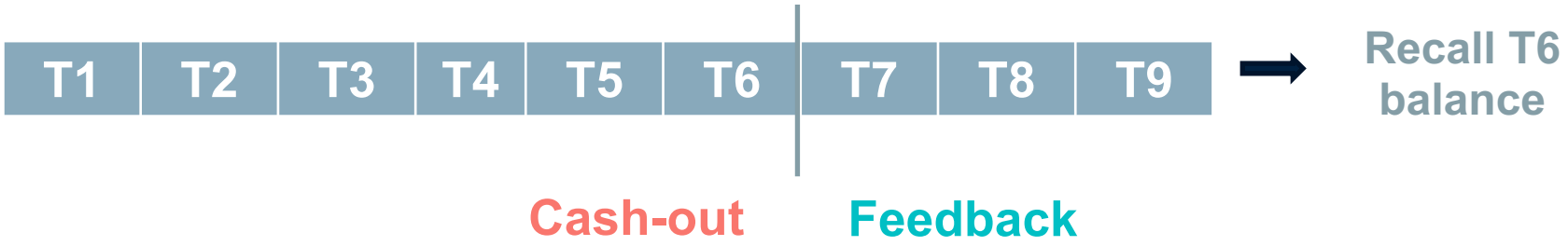
- To design and evaluate a gambling intervention to reduce **loss-chasing**, as a 'responsible gambling' tool.
    - **Loss-chasing:** the gambler continues betting in order to recover prior losses (e.g., increase bet size over the course of a losing session). It is the most endorsed symptom of gambling disorder (Zhang et al., 2020).
- Does **'cashing out'** reduce risk-seeking behaviour after losses in experienced gamblers?

Realizing losses reduces chasing

- According to Prospect Theory, increasing risk-seeking following losses could arise from a failure to 're-reference'. Successful re-referencing starts the next bet with a clean mental slate, any prior losses are regarded as final or **realized**.
- Encouraging money exchange between (mental) accounts induces re-referencing and and reduce chasing losses, termed **the realization effect** (Imas, 2016; Merkel et al., 2021).
- In the gambling context, the process of cashing out (e.g. money transfer between gambler's wallet to the casino) is a natural driver of the realization effect (Flepp et al., 2021).

Experiment

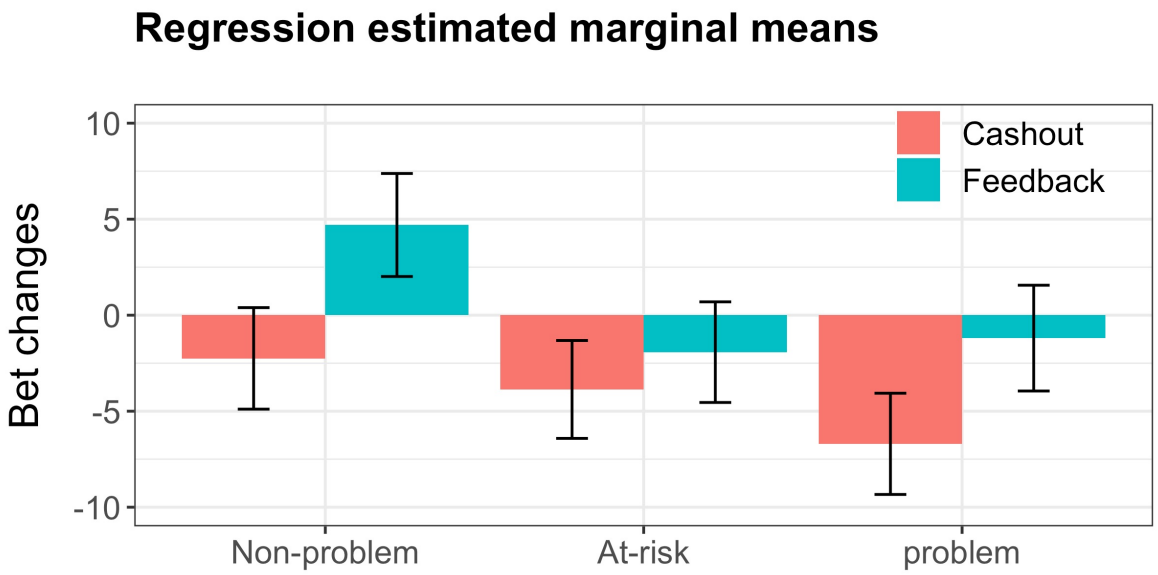
We recruited 689 non-problem gamblers, at-risk gamblers, and gamblers with problems.



Cash-out: the participant cashed out from game 1 (e.g. '*PrimeMax*') and switch to game 2 ('*LottoLuck*') after the 6th bet.

Feedback: the participant received their account balance but did not switch games.

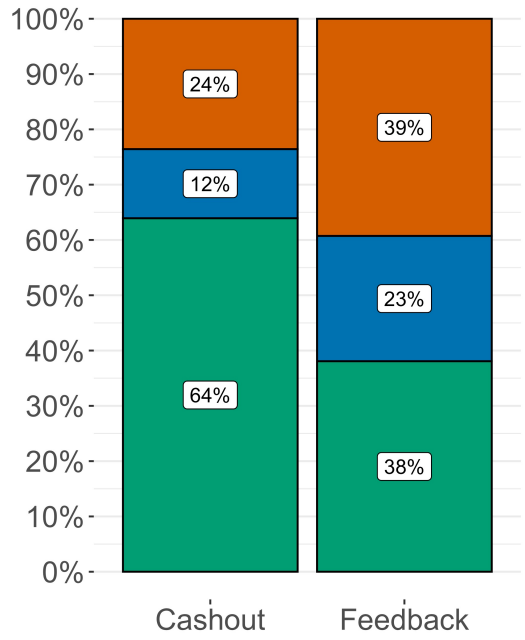
Did cash-out change loss-chasing?



Non-problem gamblers bet significantly less after cashing out than after the feedback, whereas the **at-risk** and the **problem** groups did not differ after cashing out and the feedback.

Did cash-out (vs. feedback) led to different degree of re-referencing?

Did the participant clean the mental slate before starting the next bet?



What was the T6 balance?

- **Partial**: recalled > actual balance
- **Over**: recalled < actual balance
- **Fully**: recalled = actual balance

‘Cashing out’ reduced loss chasing

- ‘Cashing out’ between bets reduces risk-seeking behaviour after losses in **non-problem gamblers**, replicating the *realization effect* in the heathy samples (Imas, 2016).
- **At-risk gamblers** and **gamblers with problems** did not reduce loss chasing significantly after cashing out compared to after the feedback.
- Financial transactions (‘cashing out’) may be used as an online responsible gambling tool in non-problem gamblers. Our procedure shows some effectiveness even with digital and hypothetical cash, although stronger manipulation may be needed in at-risk gamblers and people transfers with gambling problems.

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An online gambling intervention using the realization effect

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INTRODUCTION

Objective

- To design and evaluate a gambling intervention to reduce loss-chasing, as a 'responsible gambling' tool.
- Does **'cashing out'** reduce risk-seeking behaviour after losses in experienced gamblers?

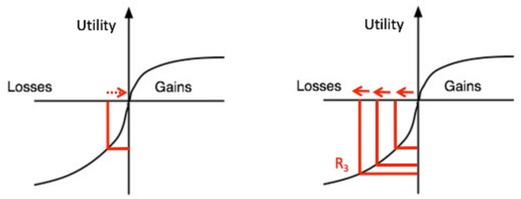
Background

Loss-chasing: the gambler continues betting in order to recover prior losses (e.g., increase bet size over the course of a losing session). It is a central clinical feature of disordered gambling (Zhang et al., 2020):

- At-risk gamblers: 50.7% are chasers
- Gamblers with problems: 75.9% are chasers (Toce-Gerstein et al., 2003).

When does loss-chasing occur?

According to Prospect Theory, increasing risk-seeking following losses could arise from a failure to 're-reference' and 'closes the associated mental account'. Successful re-referencing starts the next bet with a clean mental slate, any prior losses are regarded as final or *realized*.



Re-reference: Success | *Re-reference: Failed*

How can chasing be stopped?

- Encouraging money exchange between (mental) accounts induces re-referencing and and reduce chasing losses, termed **the realization effect** (Imas, 2016; Merkel et al., 2021).
- In the gambling context, the process of cashing out (e.g. money transfer between gambler's wallet to the casino) is a natural driver of the realization effect (Flepp et al., 2021).

METHODS

Participants

	Gender	n
Non-problem	Female	118
	Male	109
At-risk	Female	123
	Male	116
Problem	Female	55
	Male	168

- Prolific participants in Canada and the US.
- Recruited from 2021 Nov 17 - Dec 17.
- Gambled at least once in the past 12 months.
- Median age was 31.
- Stratified by the Problem Gambling Severity Index.

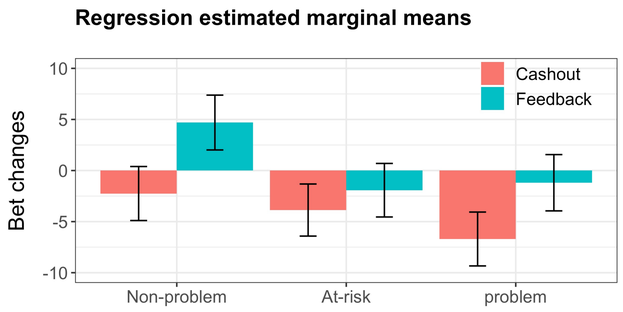
Procedure

Payoff	Probability		Payoff	Probability
Win 2.5 times your investment	1/3	OR	Lose all	2/3

- **Cash-out**: the participant cashed out from game 1 (e.g. '*PrimeMax*') and switch to game 2 ('*LottoLuck*') after the 6th bet.
- **Feedback**: the participant received their account balance but did not switch games.

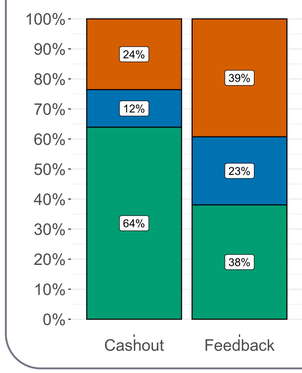
RESULTS

Did cash-out change loss-chasing?



- Non-problem gamblers bet significantly less after cashing out than after the feedback (B = -6.95, p = .020). Whereas the at-risk (B = -1.94, p = 0.5917) and the problem groups (B = -5.51, p = .207) did not differ significantly across the cash-out and the feedback conditions.
- Compared to non-problem gamblers, the cash-out effect did not different significantly in the at-risk (B = 5.00, p = .284) and the problem groups (B = 1.44, p = .785).

Did cash-out (vs. feedback) led to different degree of re-referencing?



What was the T6 balance?

- **Partial**: recalled > actual balance
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- More participants fully re-referenced after cashing out than the feedback ($\chi^2(2) = 45.77$, $p < .001$). This pattern was similar across gambling groups.
- Participants who over re-referenced (M = 5.55, SD = 24.35) *bet significantly* more than the fully (M = -3.16, SD = 29.809) and partially re-referenced groups (M = -4.35, SD = 27.74, $F(2, 680)$, p = .005).

CONCLUSION

- **'Cashing out'** between bets reduces risk-seeking behaviour after losses in non-problem gamblers, replicating the *realization effect* in the heathy samples (Imas, 2016). At-risk gamblers and gamblers with problems did not reduce loss chasing significantly after cashing out compared to after the feedback.
- Financial transactions ('cashing out') may be used as an online responsible gambling tool in non-problem gamblers. Our procedure shows some effectiveness even with digital and hypothetical cash transfers, although stronger manipulation may be needed in at-risk gamblers and people with gambling problems.
- Compared to the feedback condition, the cash-out condition induced were more more accurate in re-referencing, and the degree of re-referencing predicted reduced loss chasing. Thus, our new manipulation check indicates that successful re-referencing closes the mental account and reduces chasing, as predicted by the realization effect.

REFERENCES & DISCLOSURES

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CONTACT

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