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## 'Chances are you're about to lose': new independent Australian safer gambling messages tested in UK and USA bettor samples

Philip Newall<sup>a,b\*</sup> , Jamie Torrance<sup>c,d\*</sup> , Alex M. T. Russell<sup>b</sup> , Matthew Rockloff<sup>e</sup>, Nerilee Hing<sup>e</sup> and Matthew Browne<sup>e</sup> 

<sup>a</sup>School of Psychological Science, University of Bristol, Bristol, UK; <sup>b</sup>School of Health, Medical and Applied Sciences, Experimental Gambling Research Laboratory, Sydney, Australia; <sup>c</sup>School of Psychology, University of Chester, Chester, UK; <sup>d</sup>School of Psychology, Swansea University, Swansea, UK; <sup>e</sup>Experimental Gambling Research Laboratory, School of Human, Medical, and Applied Sciences, CQUniversity, University Drive, Bundaberg, Australia

### ABSTRACT

Current industry-developed safer gambling messages such as 'Take time to think' and 'Gamble responsibly' have been criticized as ineffective slogans. As a result, Australia has recently introduced seven independently-developed safer gambling messages. The UK Government intends to introduce independently-developed messages from 2024 onwards, and this measure could be similarly appropriate for the US states where sports betting has been legalized and gambling advertising has become pervasive. Given this context, the current study recruited race and sports bettors from the UK and USA to elicit their perceptions of the seven Australian safer gambling messages. Participants ( $N = 1865$ ) rated on a Likert-scale seven newly introduced messages and two existing ones ('Take time to think' and 'Gamble responsibly') using seven evaluative statements. Participants also reported their levels of problem gambling severity. For most statements in both jurisdictions, the new messages performed significantly better than the existing ones. Specifically, the new messages were deemed more attention grabbing, applicable on a personal level, helpful to gamblers, and more likely to encourage cutbacks in gambling. The message that included a specific call to action ('What are you prepared to lose today? Set a deposit limit') was one of the best performing messages. Interaction effects observed in relation to jurisdiction, age, gender, and problem gambling severity were generally small enough to counteract the argument that different populations might benefit from substantially different messages. These findings add to previous research on the independent design of effective safer gambling messages.

### ARTICLE HISTORY

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Safer gambling messaging; public health; gambling-related harm; 'take time to think'; 'gamble responsibly'

### Introduction

Various messages have been designed to promote safer gambling. 'Gamble responsibly' is a widely used slogan that is familiar to gamblers in Australia, Canada, and the United States, but which is largely ignored by gamblers, likely due (in-part) to its frequent presentation (Lole et al. 2019). The message 'Gamble in moderation' has also been used internationally, but recent evidence has indicated that this message produces a back-fire effect that leads to increased gambling intentions among at-risk gamblers (De Jans et al. 2023). In the UK, a related slogan 'When the FUN stops, stop' (implemented 2015–2021) was criticized by academics, politicians, and regulatory leaders (Gambling Commission 2019; Gambling Intelligence 2019 van Schalkwyk et al. 2021; Rintoul 2022), and also shown to have no protective effects on gambling behavior (Newall, Weiss-Cohen, et al. 2022). A new slogan 'Take time to think' was introduced in the UK toward the end of 2021, with later independent tests also suggesting that it also had no strong positive effects on

gambling behavior (Newall, Hayes, et al. 2023). Relatedly, gamblers in the UK have expressed negative sentiments toward these messages (Torrance, Roderique-Davies, et al. 2021; Houghton et al. 2023). The UK's Department for Culture, Media and Sport (DCMS) has announced that by mid-2024, these industry-generated slogans will give way to independently-designed safer gambling messages (Department for Culture Media and Sport 2023). This mirrors both the health warnings seen on tobacco products and also recent changes in Australia (Livingstone 2022), where seven independently-designed safer gambling messages are now mandated (Rockloff et al. 2021; Chapman and Priestly 2022). Examples include, 'Chances are you're about to lose', 'You win some. You lose more' and 'What are you prepared to lose today? Set a deposit limit'.

Numerous studies have focused on the efficacy of safer gambling messaging among electronic gaming machine (EGM) gamblers due to the high levels of harm associated with this gambling mode (Ginley et al. 2017; Browne et al.

**CONTACT** Philip Newall  Philip.Newall@bristol.ac.uk  School of Psychological Science, University of Bristol, 12a Priory Road, Bristol BS8 1TU, UK  
\*PN and JT are joint first authors who contributed equally.

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2023). In contrast, race/sports betting has received far less research in relation to safer gambling messaging. It is well established that race/sports betting produces negative impacts upon public health in jurisdictions such as the UK and Australia (Russell et al. 2019; McGee 2020), with a possible contributing factor being the frequent advertisement of mobile sports betting platforms that can be accessed at any time (Newall et al. 2019; Hing, Thorne, et al. 2022; McGrane et al. 2023; Torrance, Heath, et al. 2023; Torrance, O’Hanrahan, et al. 2023). The harms associated with race/sports betting are also observable in jurisdictions that have recently liberalized this gambling mode and related advertising, such as Canada (Vieira et al. 2023) and the USA (Grubbs and Kraus 2023). Specifically, the US Supreme Court lifted the federal ban on sports betting in 2016, enabling states to decide on its legality (US Supreme Court 2016). As of August 2023, 38 US states have legalized sports betting, yet independently-designed safer gambling messages have not been mandated. Consequently, research into the perceptions of US bettors toward newer messages is warranted.

Safer gambling messaging represents one potential avenue within the wider public health approach in reducing gambling-related harm. Such messages operate as a consumer freedom-preserving and low-cost intervention that can be implemented on a broad scale. Even when messages produce modest effects on behavior at an individual level, their broad application can nevertheless yield meaningful positive impacts across the population (Blank et al. 2021; Regan et al. 2022). While more pronounced interventions such as self-exclusion are more appropriate to those experiencing severe gambling harm (Motka et al. 2018), the more unobtrusive approach of implementing safer gambling messages could be more suitable for the larger group of low-risk gamblers. However, where possible, messaging should still aim to be sensitive to the needs of higher-risk gamblers to minimize resistance and potential backfire effects (Newall, Rockloff, Hing, Browne et al. 2023).

Individual differences that influence messaging efficacy are also an important consideration and highlight the possible need for varied types of safer gambling messages (Newall, Rockloff, Hing, Browne et al. 2023; Newall, Rockloff, Hing, Thorne et al. 2023). Bettors experiencing low-moderate gambling-harm might find safer gambling tips or strategies to be more influential, whereas those experiencing more pronounced harms could respond more to emotionally salient messages. It is evident from the diverse target audiences of gambling advertisements that there could also potentially be variations in how age and gender affect the reception of safer gambling messages (Torrance, John, et al. 2021). However, there is a lack of research in this specific area. Between-individual variance in the efficacy of various messages has been documented in the field of graphic health warnings in the tobacco literature (Sillero-Rejon et al. 2021). It is therefore also important to explore how messages are received among different groups of gamblers.

Prior research on the effectiveness of safer gambling messaging has employed a range of methodologies. For example,

some messages have been trialed *via* field studies (Auer et al. 2014; Heirene and Gainsbury, 2021; Auer and Griffiths 2023). However, conducting field studies requires collaboration with a gambling operator, and some operators have previously expressed reticence about trialing messages that may be ‘too’ effective. For example, we provide the following quote from a Behavioral Insights Team report:

‘Commissioning and regulatory bodies described one scenario in which an operator’s messaging intervention was ‘too successful’ due to it having a substantial impact on customers setting deposit limits and consequently the amount of money they were depositing. As a result, the operator experienced internal pressure to stop the intervention.’ (Behavioural Insights Team 2021, p.27).

Online experiments with gambling behavior as a dependent variable can be run without gambling industry collaboration (Rockloff et al. 2021; Newall, Weiss-Cohen, et al. 2022; Newall, Hayes, et al. 2023), but are resource intensive given the often relatively small effects from messaging interventions. By comparison, self-report evaluations of safer gambling messaging can be conducted cost-effectively and rapidly to compare potential novel messaging approaches. We adopt this methodology to compare the seven new Australian safer gambling-messages to existing messages. The current study therefore aims to:

1. Explore rating-differences between the current UK message ‘*Take time to think*’ and the international message ‘*Gamble responsibly*’ against seven new Australian safer gambling messages amongst race/sports bettors from the UK and USA.
2. Interpret interactions between jurisdiction, age, gender, and problem gambling severity in relation to message ratings.

## Method

This study was not preregistered due to its exploratory nature and the number of tests conducted. Data and materials are available at <https://osf.io/dnbt/>. Ethical approval was obtained from the School of Psychological Science Research Ethics Committee at the University of Bristol [#15552].

## Participants

Participants were recruited *via* the online crowdsourcing platform Prolific and were compensated £1 or its equivalent amount in US dollars (mean duration = 7.3 min, £8.20 per-hour pro rata). Only Prolific users who were 18 years of age or older, had previously indicated to Prolific that they have engaged in either online race or sports betting, and reside in the UK or USA were eligible. We focused solely on sports and race bettors as these groups are exposed to high rates of gambling advertising, which is a common platform for the delivery of safer gambling messages (Hing et al. 2023; Killick and Griffiths 2022). Moreover, the Australian messages we tested (described below) were specifically devised for the context of sports and race betting, because Australian

**Table 1.** Demographic characteristics of the sample.

| Gambling mode <sup>a</sup> | N (%)       |
|----------------------------|-------------|
| Race/sports betting        | 1865 (100)  |
| Virtual sports betting     | 808 (43.3)  |
| Baccarat                   | 206 (11)    |
| Blackjack                  | 1135 (60.9) |
| Bingo                      | 892 (47.8)  |
| Craps                      | 263 (14.1)  |
| Lottery                    | 1146 (61.4) |
| Pachinko                   | 149 (8)     |
| Poker                      | 1090 (58.4) |
| Video Poker                | 573 (30.7)  |
| Slots                      | 1111 (59.6) |
| Roulette                   | 936 (50.2)  |

<sup>a</sup>Participants could choose more than one answer.

**Table 2.** Gambling engagement of the sample.

| Demographic category   | N (%)       |
|------------------------|-------------|
| Jurisdiction           |             |
| UK                     | 1001 (53.7) |
| USA                    | 864 (46.3)  |
| Age: mean (SD)         | 39.4 (11.8) |
| Sex                    |             |
| Male                   | 1389 (74.5) |
| Female                 | 466 (25)    |
| Prefer not to say      | 3 (0.2)     |
| Not reported           | 7 (0.3)     |
| Ethnicity              |             |
| White                  | 1546 (82.9) |
| Black                  | 116 (6.2)   |
| Asian                  | 104 (5.6)   |
| Mixed                  | 64 (3.4)    |
| Other                  | 91 (1.4)    |
| Not reported           | 9 (0.5)     |
| Employment status      |             |
| Full-time              | 1137 (61)   |
| Part-time              | 208 (11.2)  |
| Starting soon          | 12 (0.6)    |
| Not in paid work       | 124 (6.6)   |
| Unemployed/job seeking | 79 (4.2)    |
| Other                  | 45 (2.4)    |
| Not reported           | 260 (13.9)  |

operators can legally only offer sports and race betting and lottery products online. Bettors from the UK and USA were included as these populations are culturally similar to Australia, where the existing messages are in circulation, but have not yet mandated independently developed safer gambling messages. We aimed to recruit 1000 participants each from both the UK and USA, and obtained 1,017 responses from UK-based participants, but could only recruit 884 responses from eligible USA-based participants within the study timeframe. Thirty incomplete responses were removed alongside six responses that failed attention-checks, meaning that the final sample consisted of 1001 participants from the UK and 864 from the US ( $N = 1865$ ).

Overall, 80.8% of participants reported being primarily interested in sports betting, with the remainder being primarily interested in horse race betting. Demographic information and self-reported patterns of gambling engagement were collected automatically by Prolific and are presented in Tables 1 and 2 respectively.

Participants had a median score of 1 (skewness = 2.12) on the Problem Gambling Severity Index (PGSI), which is a commonly-used self-report screen for disordered gambling in community samples (Ferris and Wynne 2001). Total

**Table 3.** Safer gambling messages and their abbreviations.

| Message                                                         | Abbreviation        |
|-----------------------------------------------------------------|---------------------|
| <i>Chances are you're about to lose</i>                         | About to lose       |
| <i>What's gambling really costing you?</i>                      | Real cost           |
| <i>You win some. You lose more</i>                              | You lose more       |
| <i>Imagine what you could be buying instead</i>                 | Buy instead         |
| <i>What are you prepared to lose today? Set a deposit limit</i> | Prepared to lose    |
| <i>Think. Is this a bet you really want to place?</i>           | Really want to bet? |
| <i>What are you really gambling with?</i>                       | Gambling with       |
| <i>Take time to think</i>                                       | Take time to think  |
| <i>Gamble responsibly</i>                                       | Gamble responsibly  |

scores out of 27 can be produced that correspond to four clinical categories. The self-reported problem gambling severity rates in online samples tend to be higher than those observed in the general population (Russell et al. 2022). Within the sample, 660 participants (35.4%) were categorized as 'non-problem gamblers', 490 (26.3%) as 'low-risk gamblers', 421 (22.6%) as 'moderate-risk gamblers', and 294 (15.8%) as 'problem gamblers'. PGSI scores are strongly correlated with other gambling-related measures such as gambling frequency, money spent on gambling, and trait impulsivity (Currie et al. 2013; Haw 2017; Holtgraves 2009). Therefore, these additional measures were not collected to maintain a modest survey length.

## Measures

Participants rated how strongly they agreed or disagreed with seven statements pertaining to nine safer gambling messages. These statements and messages were sourced and adapted from two Australian Federal government funded reports (Rockloff et al. 2021; Chapman and Priestly 2022). The messages developed in these reports are attached as tag-lines to all gambling advertising in Australia, and are part of the implementation of the National Consumer Protection Framework that aims to minimize the harm of gambling (Jenkinson et al. 2019). The framework was agreed by all states and territories in 2018 and includes 10 measures to protect online gamblers, including the provision of consistent gambling messaging across all states and territories. All authors in the current study agreed to select a subset of agreement statements and messages from the previous reports to economize on our resources. The statements were: 'This message is easy to understand', 'This message is helpful to gamblers', 'This message grabs my attention', 'I believe what is being said in this message', 'This message suggests that people should cut back on their gambling', 'This message could speak to people on a personal level' and 'This message goes too far'. Responses were captured on a seven-point Likert scale from 'strongly disagree' (1) to 'strongly agree' (7). The nine messages that were evaluated are shown in Table 3.

## Procedure

In this within-participants online experiment, the nine messages were presented in a random order, and participants were asked to rate each message based on the seven randomly ordered statements, described above. Participants



then completed the PGSI. As a data quality check, participants then completed a self-reported carelessness check: *'In your honest opinion, should we use your data in our analyses in this study? (Do not worry, this will not affect your payment, you will receive the payment code either way.)'* (Brühlmann et al. 2020). Only participants who responded 'yes' had their data retained for analysis. Following completion of the study, participants were redirected back to Prolific to receive payment.

### Data analysis

Analyses were conducted separately for each jurisdiction, except for factorial models that aimed to determine significant differences across jurisdictions. For each statement, mean ratings for each message were compared using repeated measures general linear models. Greenhouse-Geisser corrections were applied to omnibus statistics, as all models violated sphericity assumptions. Pairwise comparisons were conducted between each possible pairing of messages for each statement separately for each jurisdiction. For each statement, messages were ordered from highest score (i.e. most agreement) to lowest, and the highest score was compared to the second highest, third highest, etc. Any messages that were not statistically significantly different to the highest-rated message are considered to be in the same 'band' as the highest-rated message, as indicated by horizontal brackets in Figures 1–7 below. When a message was observed to be significantly different from the highest-rated message for that statement, that message became the highest-rated message for the next band, and each subsequent message was compared to it. This method of presenting the results simplifies the large number of pairwise comparisons in the results. Results were compared across jurisdictions by introducing an interaction term to the repeated-measures omnibus models. Interactions are reported as omnibus effects, due to the number of pairwise comparisons. An alpha of 0.001 is used throughout, both for omnibus effects and pairwise comparisons, due to the number of comparisons.

## Results

### Message ratings

For most statements in both jurisdictions, the new messages performed significantly better than the existing messages (*'Take time to think'* and *'Gamble responsibly'*), although there are some exceptions. *'Gamble responsibly'* was one of the most believable messages in the USA and the highest message for understanding. The existing messages were also the lowest in terms of 'too far', where lower scores may be preferable. However, all messages rated low on 'too far', with means indicating that, on average, participants did not think that any of the statements went too far.

Among the new messages, some consistent patterns emerged. *'What are you really gambling with?'* and *'Think. Is this a bet you really want to place?'* generally rated lower than other new messages on most statements. Messages that

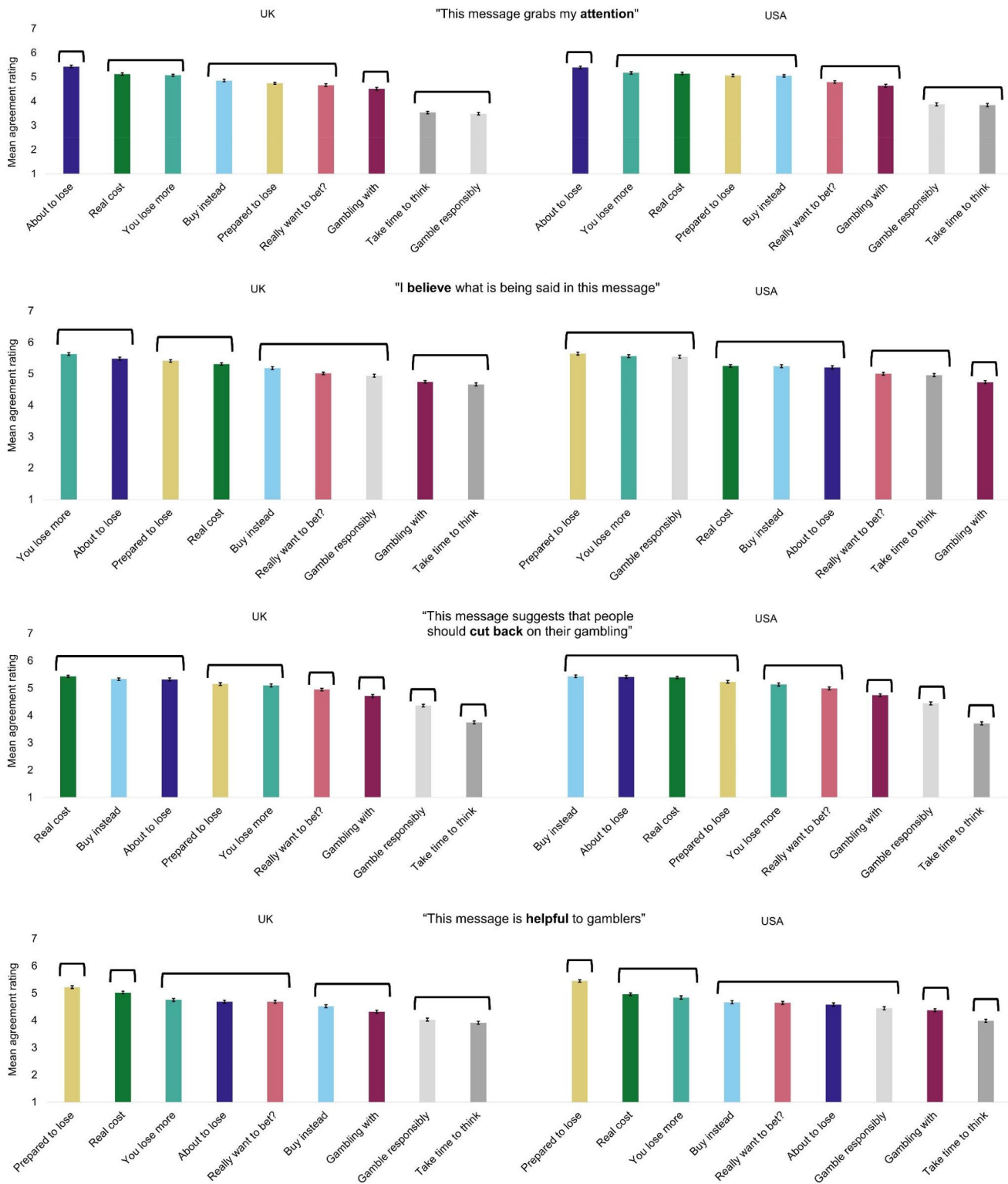
consistently rated strongly on all scales were *'Chances are you're about to lose'*, *'You win some, you lose more'* and, to a lesser extent, *'Imagine what you could be buying instead'* and *'What are you prepared to lose today? Set a deposit limit'*. The last message is the only one that includes a call to action, setting a deposit limit, and rated highly on 'helpful' and 'understand', likely for this reason. See Figures 1–7 for all mean ratings of agreement with each statement for each message by jurisdiction.

### Interactions by jurisdiction, age, gender and PGSI score

In relation to interactions, the pattern of differences between messages varied significantly across jurisdictions for all but 'cut back' and 'too far' (Table 4). Significant age differences between ratings of messages were observed in both jurisdictions for attention and personal level, as well as helpful in the USA. No gender differences were observed in the USA, but in the UK gender differences were observed for attention, cut back, helpful, and personal level. In the UK, no interactions were observed by the PGSI score. In contrast, in the USA, interactions by PGSI were observed for all statements apart from 'too far'. Eta-squared values for significant interactions typically indicated small effects ( $\eta^2 \sim .01$ ) (Cohen 2013). Therefore, the interactions did not entail that a participant's gender or PGSI score were an important determinant of which message would be seen as most attention grabbing or understandable; the order of the message ratings was very similar across demographics in a given jurisdiction.

## Discussion

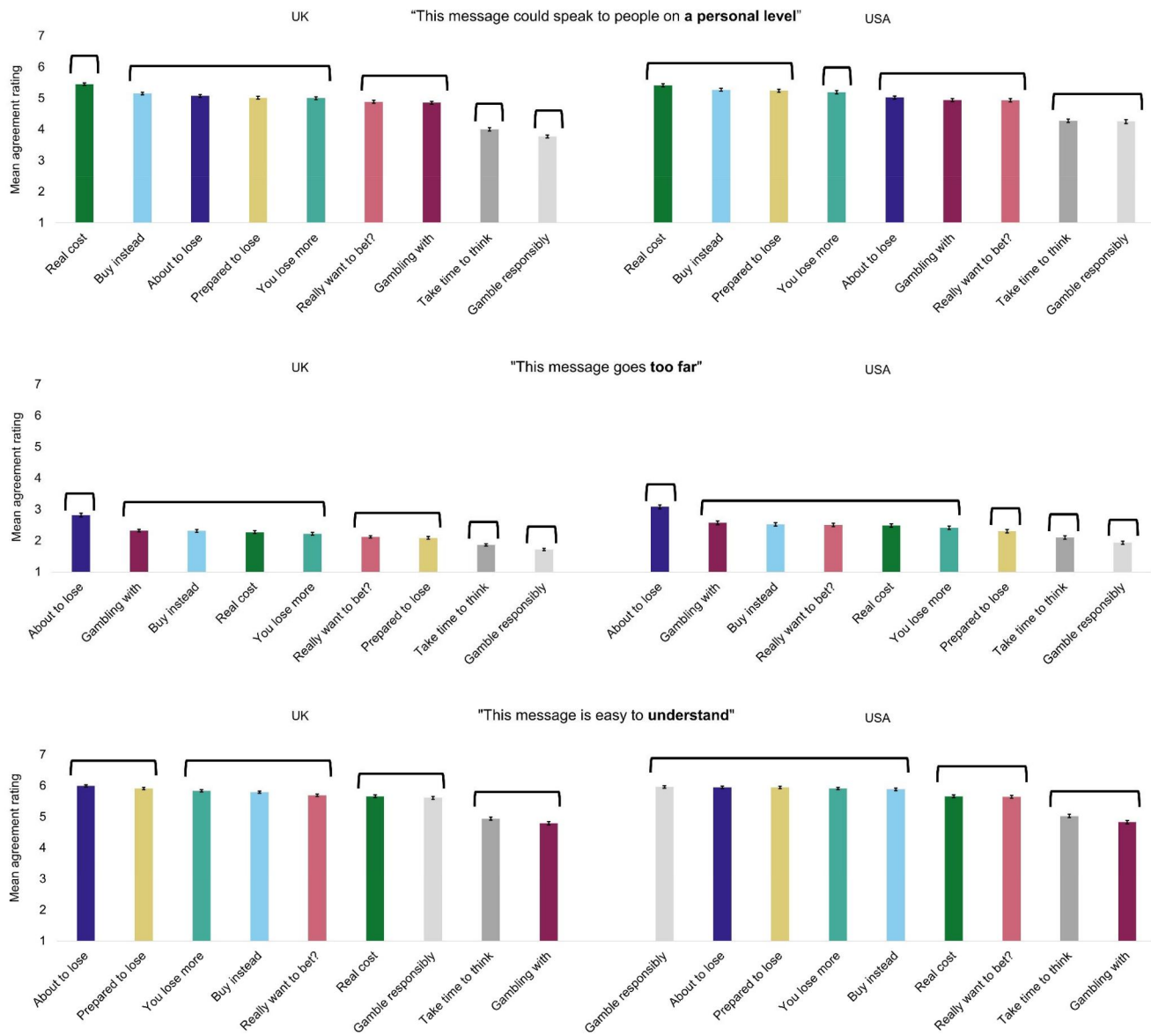
The UK DCMS has recently announced that industry-favored slogans will be replaced in 2024 by independently-designed safer gambling messages in line with Australian changes in 2023 (Department for Culture Media and Sport 2023). Contrastingly, the US has seen a widespread liberalization of sports betting and a large increase in related advertising, without any federal or state mandates on message content. Given this context, the present study explored the receptiveness of two existing messages and seven new Australian messages among race/sports bettors from the UK and USA. Overall, the new messages performed significantly better than the existing messages (*'Gamble responsibly'* and *'Take time to think'*) for most statements and in both jurisdictions. Specifically, this was observable in relation to the new messages' ratings in capturing participants' attention, encouraging them to cut back on their gambling, speaking to them on a personal level, and being perceived as helpful. This is likely attributable to the focus of the new messages on cautioning against the adverse outcomes of gambling, such as losses. In contrast, the existing messages offer advice in a more generic manner with no mention of loss (Rintoul 2022). The message *'Chances are you're about to lose'* consistently performed well across the statement ratings in both jurisdictions.



Figures 1–7. Mean ( $\pm 1$  standard error) ratings of agreement by jurisdiction. Brackets indicate messages that are not significantly different to the highest rating in the bracket.

Among gamblers from the UK, all the newer messages performed better in relation to being believable except for ‘What are you really gambling with?’, which speculatively may cause confusion for some respondents. However, this effect was not seen among gamblers from the USA who reported ‘Gamble responsibly’ as one of the most believable

and understandable messages. It is possible that ‘Gamble responsibly’ has reached saturation in the UK whereas this would be unlikely amongst gamblers from the USA who have not had much previous exposure to this message. Another explanation is that the USA has a more libertarian culture that promotes individual responsibility. Despite this,



Figures 1–7. Continued

due to this message largely being ignored by gamblers in jurisdictions where it has long been implemented (Lole et al. 2019), we do not recommend that ‘*Gamble responsibly*’ should be widely used in the USA. Relatedly, despite their commonality, the two existing messages were perceived as some of the least understandable messages amongst the UK sample. This is perhaps due to the messages lacking a direct call to action or any mention of the negative aspects of gambling (such as loss). Considering the existing messages lack these attributes, UK bettors may not inherently understand their intended purpose and may therefore deem them to be less comprehensible. A future qualitative study may be best placed to explore this possibility. It should be acknowledged that being understandable is not the only factor for consideration when assessing the overall effectiveness of harm-reduction messaging. Arguably, a more important factor within a gambling context is the ability of the message to

encourage safer gambling behaviors (Newall, Rockloff, Hing, Browne et al. 2023; Newall, Rockloff, Hing, Thorne et al. 2023). For instance, one recent study found that EGM spending decreased when at-least monthly EGM gamblers were advised to take regular breaks, avoid gambling out of boredom, and set limits (Hing, Browne, et al. 2022). This suggests that specific calls to action are beneficial, especially among those who are at low or moderate risk of experiencing gambling problems, whereas those experiencing more severe problems may benefit from more pronounced interventions (Hing et al. 2022). Relatedly, the only message within the current study that contained a specific call to action was ‘*What are you prepared to lose today? Set a deposit limit*’, which also performed well across most rating statements, especially for being perceived as helpful and believable. A more targeted investigation of calls to action within safer gambling messages should therefore be

**Table 4.** Omnibus main effect and interaction *F*-values (with eta-squared values) for each statement.

| Jurisdiction   | UK                  | UK                  | UK                     | UK                   | USA                 | USA                 | USA                    | USA                  | Both                         |
|----------------|---------------------|---------------------|------------------------|----------------------|---------------------|---------------------|------------------------|----------------------|------------------------------|
| Effect         | ME message          | Interaction w/- age | Interaction w/- gender | Interaction w/- PGSI | ME message          | Interaction w/- age | Interaction w/- gender | Interaction w/- PGSI | Interaction w/- jurisdiction |
| <i>N</i>       | 1001                | 1001                | 1001                   | 1001                 | 864                 | 864                 | 864                    | 864                  | 1865                         |
| Attention      | 248.33***<br>(0.20) | 4.83***<br>(0.01)   | 4.14***<br>(<0.01)     | 1.23                 | 153.98***<br>(0.15) | 8.29***<br>(0.01)   | 0.58                   | 5.38***<br>(0.01)    | 5.44***<br>(<0.01)           |
| Believe        | 82.00***<br>(0.08)  | 1.36                | 1.43                   | 1.57                 | 58.78***<br>(0.06)  | 2.57                | 1.45                   | 3.69***<br>(<0.01)   | 22.45***<br>(0.01)           |
| Cut back       | 173.66***<br>(0.15) | 0.69                | 3.50***<br>(<0.01)     | 1.35                 | 166.77***<br>(0.16) | 1.43                | 0.43                   | 7.49***<br>(0.01)    | 0.70                         |
| Helpful        | 95.32***<br>(0.09)  | 2.78                | 4.53***<br>(0.01)      | 2.06                 | 79.98***<br>(0.09)  | 3.94***<br>(0.01)   | 0.59                   | 5.30***<br>(0.01)    | 6.64***<br>(<0.01)           |
| Personal level | 180.39***<br>(0.15) | 9.96***<br>(0.01)   | 3.66***<br>(<0.01)     | 0.95                 | 97.82***<br>(0.10)  | 7.02***<br>(0.01)   | 0.76                   | 3.98***<br>(0.01)    | 8.00***<br>(<0.01)           |
| Too far        | 94.73***<br>(0.09)  | 0.59                | 1.85                   | 1.41                 | 80.06***<br>(0.09)  | 1.77                | 1.28                   | 1.89                 | 1.31                         |
| Understand     | 147.84***<br>(0.13) | 1.35                | 2.79                   | 2.88                 | 134.44***<br>(0.14) | 0.35                | 1.00                   | 4.84***<br>(0.01)    | 5.59***<br>(<0.01)           |

ME: main effect. Values are Greenhouse-Geisser corrected *F*-values, with all values eight degree of freedom effects.

\*\*\**p* < .001. Alpha of 0.001 used throughout.

considered. For example, the newly introduced Australian messages could be altered in this manner; ‘*You win some, you lose more. Take a moment to set a loss limit*’.

Interaction effects on jurisdiction, age, gender, and problem gambling severity were mostly negligible. Gamblers with high PGSI scores are an important subgroup when it comes to harm-reduction in gambling, and yet they can be uncommon enough in the population that it may be hard to adequately power interaction models with PGSI in population samples (Russell et al. 2022). The relatively high proportion (15.8%) of participants in the highest-risk PGSI category could therefore be seen as a strength of the present study, as this helps support our interpretation that any PGSI interactions observed were negligible in size. These results challenge the notion that distinct population segments require tailored messages, at least for these messages. However, within broader safer gambling campaigns targeting specific demographics, gender-specific messages could be effective, as with gender-specific anti-smoking campaigns. For example, prior studies have revealed that specific anti-smoking advertisements, like those employing empathy appeals, tend to be more impactful on women compared to men (Shen 2015). However, the overall body of evidence on this topic remains somewhat inconsistent (Cruz et al. 2019). In the context of safer-gambling campaigns, there is a paucity of research on this topic. We therefore propose that further investigation is needed moving forward given the gender-related differences in gambling participation and target populations for gambling advertising (Torrance, John, et al. 2021).

This study has various limitations. Firstly, the messages were presented to participants in one size and *via* the same format. Examining the receptiveness of varying sizes, colors, and formats of messages would have provided further insight. Second, the participants were targeted to be adult sports and race bettors, since this is a group that is most exposed to advertising. Consequently, it is not clear how the messages would perform amongst children as well as those who only gamble on other forms, such as EGMs or casino games. Third, sports betting is legalized in the US on a

state-by-state basis, with at the time of writing 30 states having legalized at least some form of sports betting. Unfortunately, it is beyond the scope of the present study to look at whether US-based participants were engaging in legal or illegal sports betting, an issue which is compounded by the fact that the legal age of sports betting can vary between 18 and 21 in the US (Shirley 2022). This moderating factor should be explored in future research. Fourth, participants within this study subjectively rated safer gambling messages outside of a gambling context which may hinder ecological validity. In future research, eye-tracking studies could therefore complement ratings on measures such as attention (Lole et al. 2019; Onwuegbusi et al. 2023). However, this study provides a good foundation for future investigations into the effects of these messages *via* field-trials moving forward (Auer and Griffiths, 2014, 2023; Heirene and Gainsbury, 2021). Fifth, and relatedly, when considering the potential of new forms of safer gambling messages, it is important to consider findings from these field studies. These studies have frequently demonstrated minimal or no significant impacts of messaging on gambling behavior (Behavioural Insights Team 2021; Heirene and Gainsbury 2021). We therefore propose that messaging in isolation can only constitute a minor component within a comprehensive public health strategy aimed at reducing gambling-related harms. However, the content of safer gambling messages should still be optimized. Safer gambling messages are a cost-effective broadscale intervention even if they are ultimately only minimally effective at the individual level.

## Conclusions

This study demonstrates that the more recent safer gambling messages from Australia are typically more positively received by race/sports bettors in the UK and USA, in comparison to existing messages. In general, the newer messages are rated as more helpful, attention-grabbing, likely to encourage cutbacks in gambling, and more applicable on a personal level. Although safer gambling messaging should constitute only one component of a wider public-health



approach in reducing gambling-related harm, it is important to increase their efficacy and impact. Consequently, these findings can help inform governments, regulators, and policymakers who are yet to introduce independently developed safer gambling messages in jurisdictions that currently use repetitive slogans or in which such messaging is absent.

## Disclosure statement

The authors declare that they have no competing interests.

Philip Newall is a member of the Advisory Board for Safer Gambling – an advisory group of the Gambling Commission in Great Britain, and in 2020 was a special advisor to the House of Lords Select Committee Enquiry on the Social and Economic Impact of the Gambling Industry. In the last three years, Philip Newall has contributed to research projects funded by the Academic Forum for the Study of Gambling (AFSG), Clean Up Gambling, Gambling Research Australia, NSW Responsible Gambling Fund, and the Victorian Responsible Gambling Foundation. Philip Newall has received travel and accommodation funding from the Alberta Gambling Research Institute and received open access fee funding from Gambling Research Exchange Ontario (GREO).

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## ORCID

Philip Newall  <http://orcid.org/0000-0002-1660-9254>  
 Jamie Torrance  <http://orcid.org/0000-0001-5001-4126>  
 Alex M. T. Russell  <http://orcid.org/0000-0002-3685-7220>  
 Matthew Browne  <http://orcid.org/0000-0002-2668-6229>

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