



Applying the Prototype Willingness Model to predict binge-drinking and investigate the influence of gain, loss, and combined message-framing



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BACKGROUND

Roughly **2.3 billion people drink alcohol worldwide** (Office for National Statistics, 2018). It is the **third leading cause of global ill-health**, responsible for **2.8 million deaths** in 2016, alongside health, social, and economic consequences (NHS, 2013).

Binge drinking, consuming eight alcohol units (male) or six (female), is a particularly dangerous pattern of alcohol consumption (Fillmore & Jude, 2011).

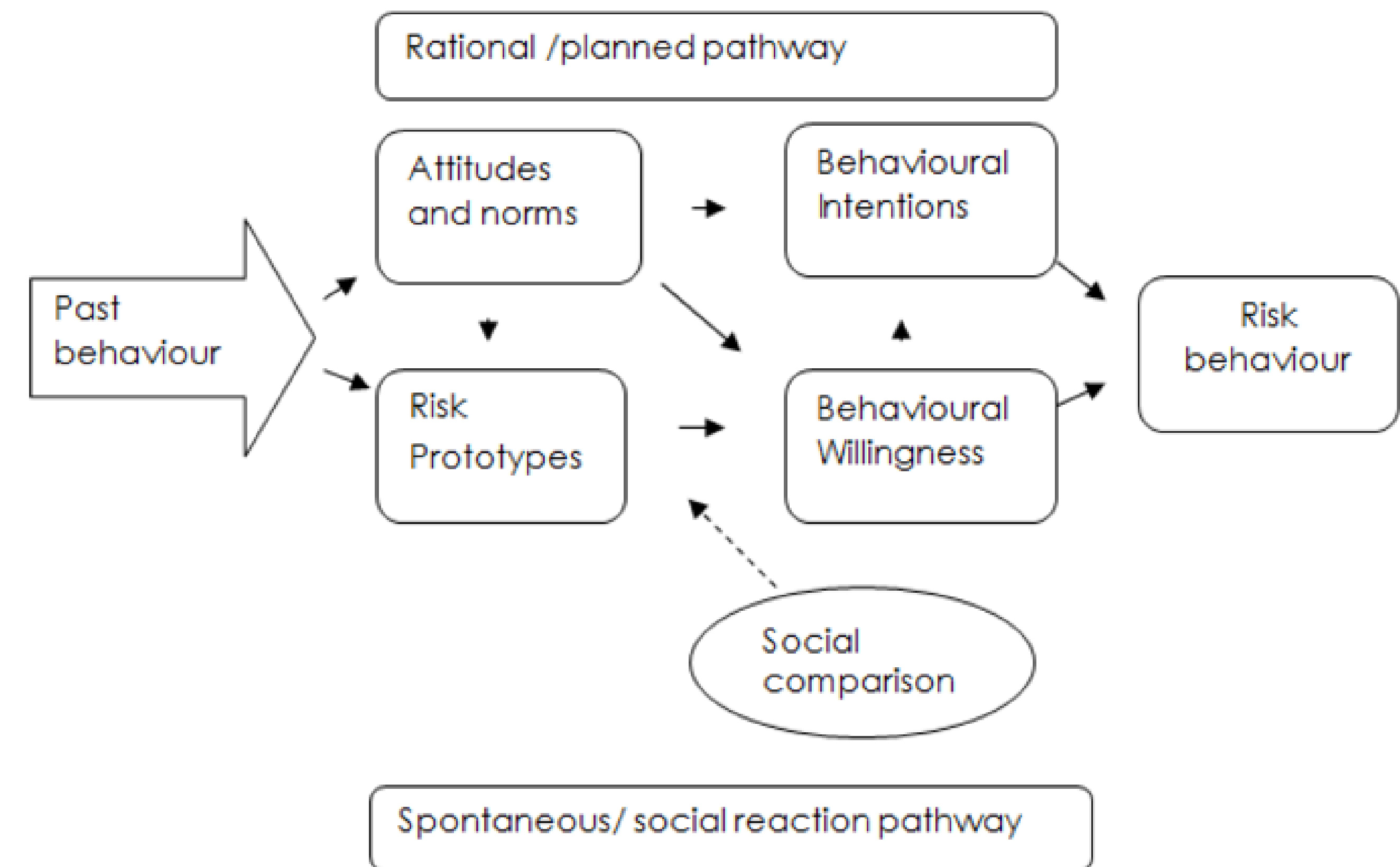


Message-framing might resolve this (Rothman & Salovey, 1997). Messages **presenting gains** (positive outcomes) seem **more effective** than messages that **presenting losses** (negative outcomes) at reducing binge-drinking (Baek et al., 2013; Pettigrew et al., 2014). However, findings are inconsistent and research presenting mixed-framed appeals is limited.

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RESEARCH OBJECTIVE

This study investigated the influence of **message-framing at reducing binge-drinking** using the **Prototype Willingness Model (PWM)**.




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METHODS


124 Participants aged 18+ completed an **online experiment**.



Participants completed measures of **past behaviour**, **social norms**, **explicit attitudes**, and **prototype perceptions** (favourability and similarity) before **random allocation** to a **gain, loss, or combined message-framed condition** to view appeals concerning binge-drinking outcomes. **Intentions, willingness, and implicit attitudes** were then assessed.


70% Female


AGE 18-80
Mean=36.1


44% Students

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KEY FINDINGS

• **3/4+ of participants binge-drank**, drinking roughly 3-4 drinks on 3-4 days during two weeks.



• **Message-framing had no effect** on intentions, willingness, and implicit attitudes towards binge-drinking.

• The **Prototype Willingness Model had partial predictive utility** for binge-drinking intentions (with prototype similarity being the strongest predictor) and willingness (with past behaviour being the strongest predictor).

• Implicit attitudes correlated with explicit attitudes and binge-drinker similarity.

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CONCLUSIONS

This study **casts doubt over message framing's impact** on intentions, willingness, and implicit attitudes.

The **PWM had a limited predictive utility** for binge-drinking intentions and willingness, questioning the significance of attitudes, subjective norms, and prototype perceptions in their respective pathways. **IATs were credited** because implicit and explicit attitudes were significantly correlated. **Longitudinal research** on the effectiveness of message framing on binge drinking is required, with **actual behaviour** and **PWM constructs measured implicitly and explicitly**.

Overall, anti-binge drinking values should be the focus of **binge-drinking interventions**, placing a particular emphasis on **tackling binge-drinker similarity and past behaviour**.

REFERENCES

Baek, T. H., Shen, L., & Reid, L. N. (2013). Effects of message framing in anti-binge drinking psas: The moderating role of counterfactual thinking. *Journal of Health Communication*, 18(4). <https://doi.org/10.1080/10810730.2012.743621>

Fillmore, M. T., & Jude, R. (2011). Defining "binge" drinking as five drinks per occasion or drinking to a.08% BAC: Which is more sensitive to risk? *American Journal on Addictions*, 20(5). <https://doi.org/10.1111/j.1521-0391.2011.00156.x>

NHS England. (2013). England.nhs.uk. Retrieved 10 October 2022, from <https://www.england.nhs.uk/2013/>.

Office for National Statistics. GOV.UK. (2018). Retrieved March 1, 2023, from <https://www.gov.uk/government/organisations/office-for-national-statistics>

Pettigrew, A. M. (2014). The politics of organizational decision-making. In *The Politics of Organizational Decision-Making*. <https://doi.org/10.4324/9781315824116>

Rothman, A. J., & Salovey, P. (1997). Shaping perceptions to motivate healthy behavior: The role of message framing. *Psychological Bulletin*, 121(1). <https://doi.org/10.1037/0033-2909.121.1.3>