

IGT Computational Model

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Discussions and Conclusions

- The results seen in WPLP compared to the WSLS model are different from what we expected. The WSLS outperformed the base model for 90% of their participants compared to the WPLP which only outperformed for 30% of our participants.
- Choice freedom may be a factor behind the low proportion of best fit data in the WPLP. Since a **random** deck is highlighted each trial, the participant must hold in working memory the previous result until the same deck is highlighted again.
- The WPLP model also shows there are higher probabilities for playing a deck if they won last time than passing if they lost, this may be due to participants' level of risk-aversion, where

References

- Hu, X., Shen, Y., & Dai, J. (2023). Strategy switching in a sequence of decisions: Evidence from the Iowa Gambling Task. *Acta Psychologica Sinica*, 55(11).
- Worthy, D. A., Hawthorne, M. J., & Otto, A. R. (2013). Heterogeneity of strategy use in the Iowa gambling task: a comparison of win-stay/lose-shift and reinforcement learning models. *Psychonomic bulletin & review*, 20(2), 364–371. <https://doi.org/10.3758/s13423-012-0324-9>