

More Isn't Always Better: Receiving Additional Information Increases the Desirability Bias

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OVERVIEW

It is a common belief that more information leads to better decision-making (e.g. political elections and trial by jury). What if this is not the case? The desirability bias is the increased perceived likelihood for desired outcomes, and the decreased perceived likelihood for undesired outcomes. These studies manipulated the amount of information in order to measure changes in wishful thinking. Throughout all three studies, the more information available, the more wishful thinking people exhibited.

BACKGROUND

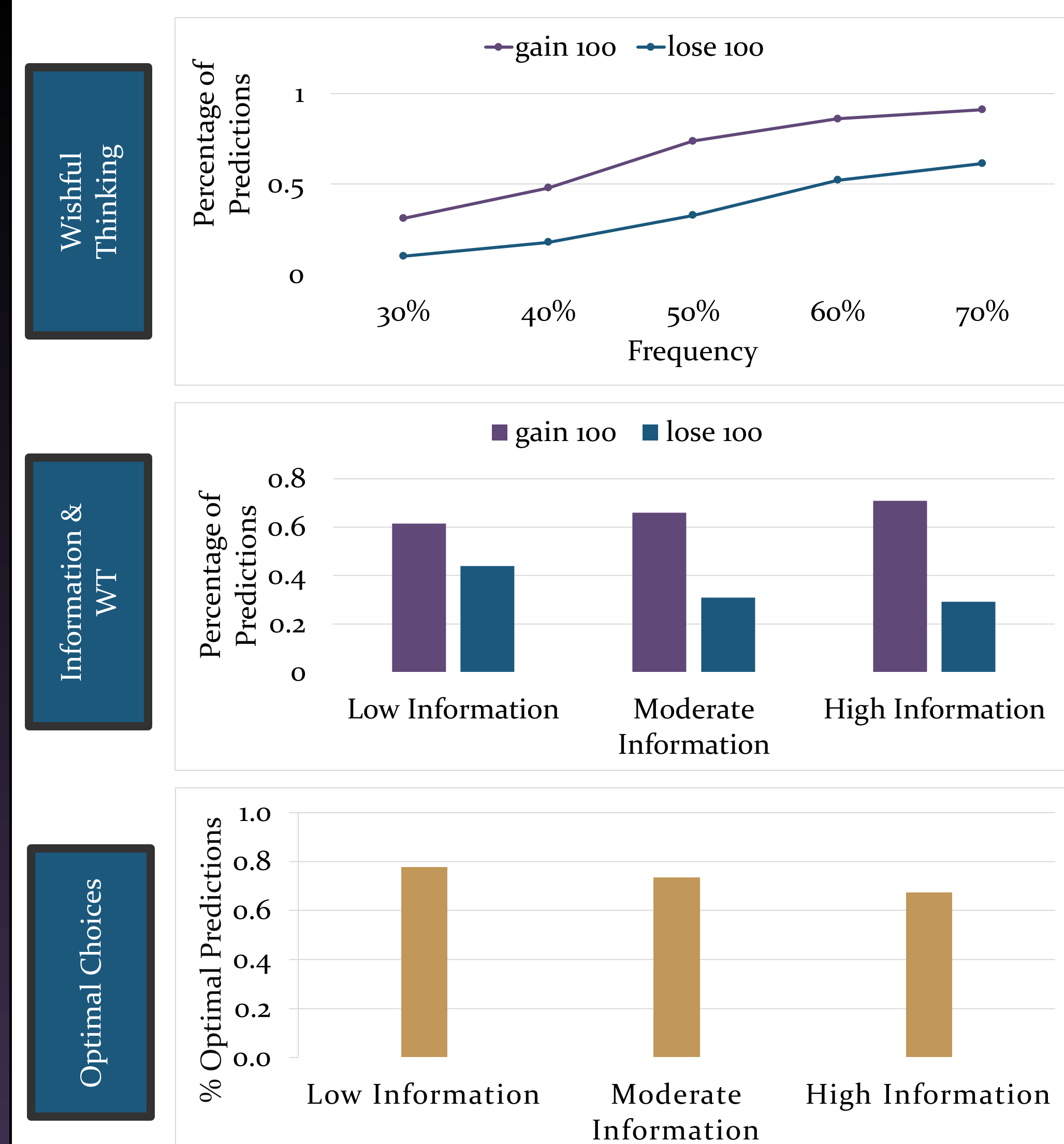
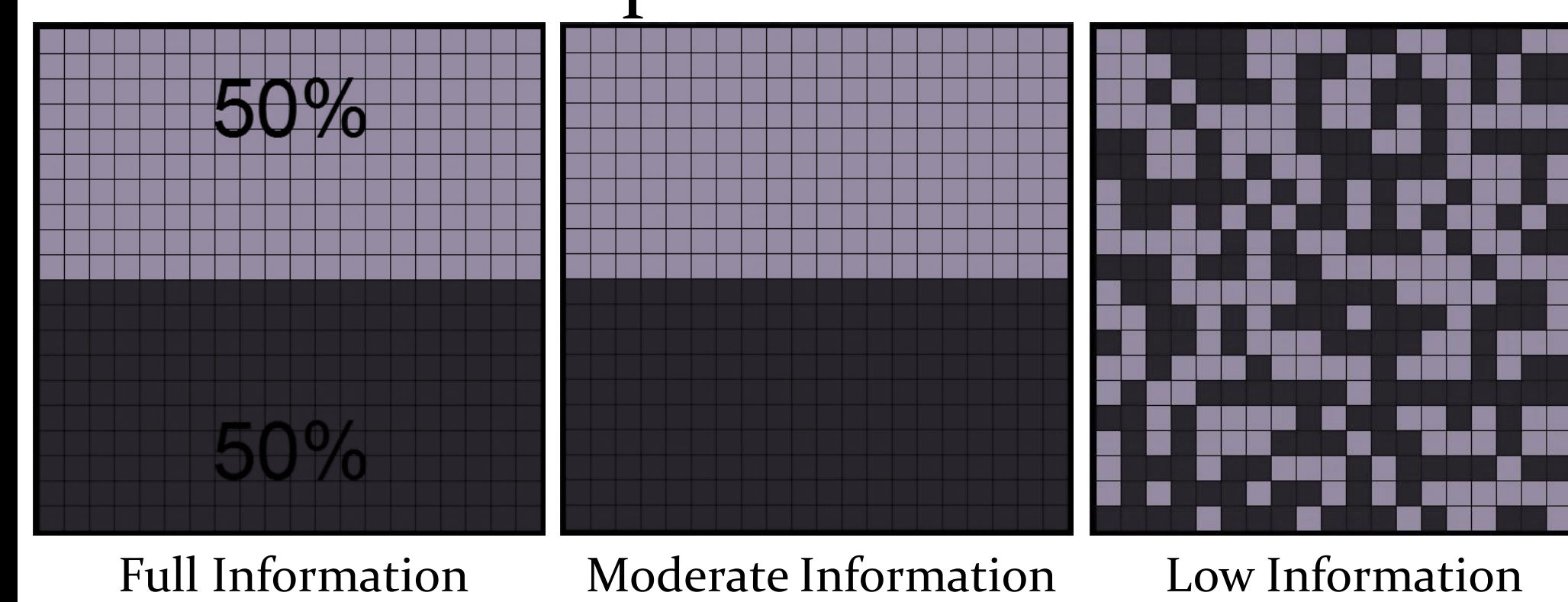
Wishful thinking is the tendency for people to inflate the probability of an outcome they find desirable (Krizan & Windschitl, 2007). Wishful thinking can happen in situations with accuracy incentives (Simmons & Massey, 2012), and in situations where people have extended experience and receive feedback (Massey et al., 2011). People exhibit the greatest degree of wishful thinking in situations that are more uncertain (Krizan & Windschitl, 2007). There is evidence that even experts exhibit bias in their decision-making, (Olsen, 1997). No study has investigated the effect of varying amounts of information on the desirability bias.

REFERENCES

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 Massey, C., Simmons, J. P., & Armor, D. A. (2011). Hope over experience: Desirability and the persistence of optimism. *Psychological Science*, 22, 274-281.
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STUDY 1

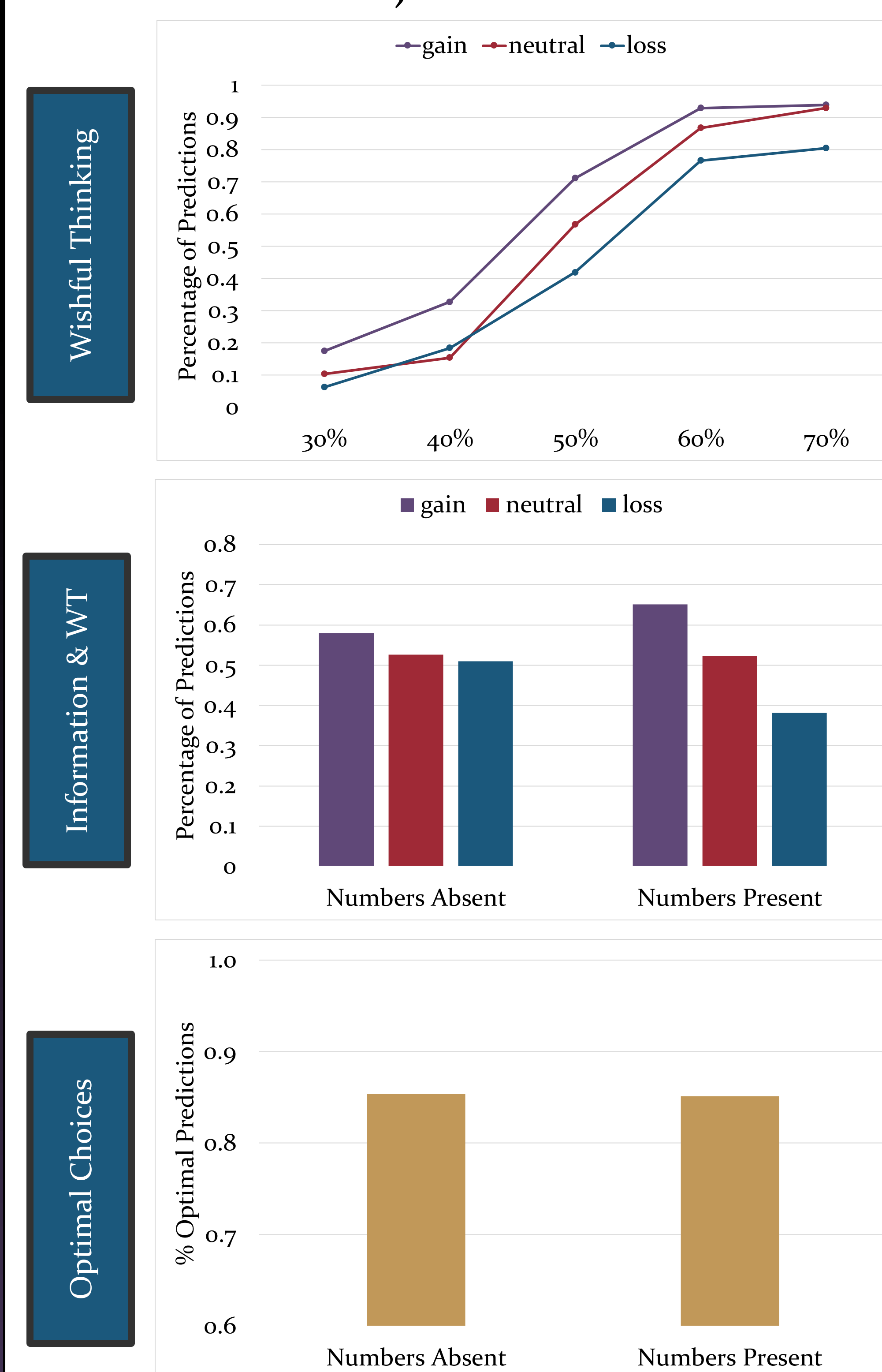
Participants were shown a grid (see below) and predicted which color the computer would pick at random. Participants were assigned to the high information (probabilistic and visual), moderate information (visual only), or low information condition. One color was associated with either winning points or losing points. The frequency of the two colors was manipulated.



- More likely to predict the color associated with winning vs. losing points, $F(1,115) = 103.80, p < .001, \eta_p^2 = .474$.
- More information led to more wishful thinking, $F(2,115) = 5.39, p = .006, \eta_p^2 = .086$.
- Those who were given less information made more accurate decisions, $F(2,115) = 4.43, p = .014, \eta_p^2 = .072$.

STUDY 2

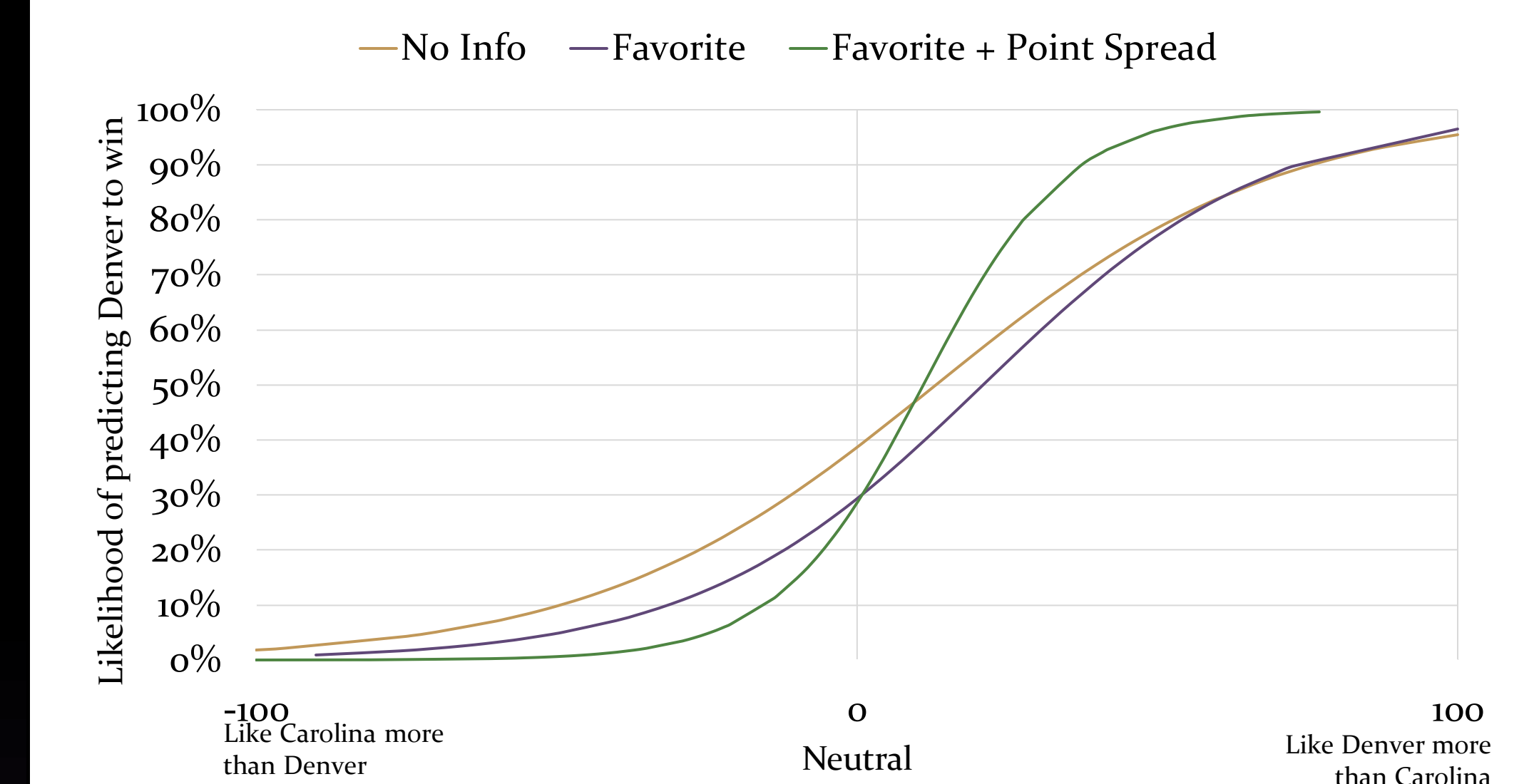
Participants were shown jars with two colors of beads and predicted which color would be drawn. They were assigned to the probability information absent or probability information present condition. In the information present condition, the participants were told the number of each color bead in the jar. The numbers of beads and desirability of the colors varied across numerous jars.



- More likely to predict the color associated with winning vs. losing points, $F(2,92) = 14.36, p < .001, \eta_p^2 = .238$.
- More information led to more wishful thinking, $F(2,92) = 5.71, p = .005, \eta_p^2 = .110$.
- No difference in optimal choices, $t(96) = .085, p = .933$.

STUDY 3

Participants made predictions about the outcome of the 2016 Super Bowl. Among other things, they were asked how much they liked the Carolina Panthers and the Denver Broncos. Before making their prediction, some were given no information, some were told who was favored to win, and some were told the point spread + who was favored to win.



- Predictions were strongly related to how much they liked the teams, $\beta = .083, p < .001$.
- The more information given, the stronger the relationship between team liking and predictions, $p = .045$.
- Participants given favorite + point spread were more biased by their preferences than participants given just the favored team, $p = .040$, and participants given no information, $p = .013$.

CONCLUSION

Receiving more information actually increased the desirability bias. Future research should investigate why additional information leads to more biased judgments. In particular, it should examine what kinds of information lend itself to more bias, and what debiasing techniques would decrease this effect. These studies demonstrate that it should not be assumed that people will be less biased when given more information.