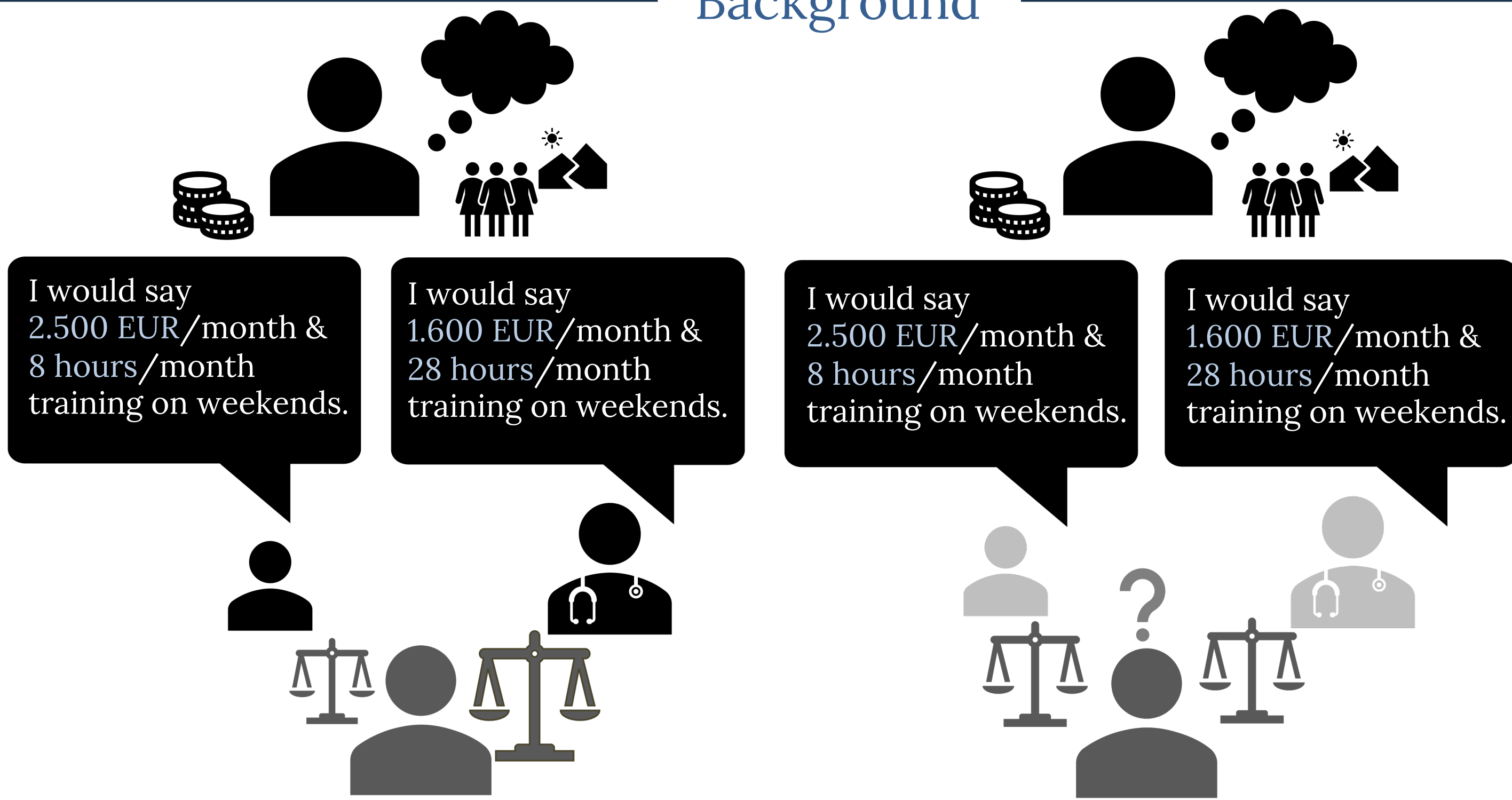




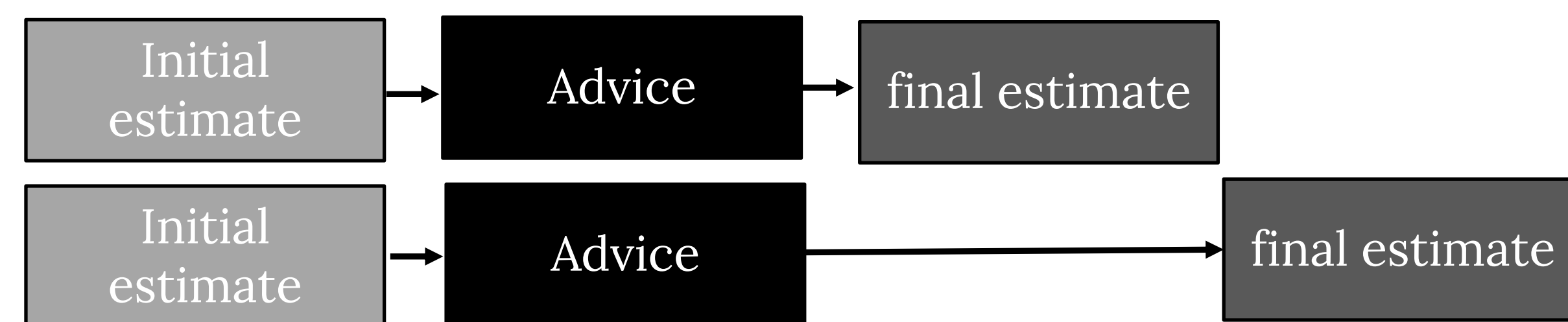
Abstract

In three preregistered experiments ($N_{\text{total}} = 1127$), we investigated the moderating role of source memory in the processing of advisor quality. In all experiments, **the influence of advisor quality was stronger with better source memory**, suggesting that the actual weighting occurs at the time of the final judgment. The presented research extends the typical advice taking paradigm and establishes source memory as an important constraint for adaptive advice weighting.

Background



- Advice = „any opinion or information that one person, the **advisor**, shares with another, the **decision maker**, in the context of a specific decision problem, the **environment**“ (Kämmer et al., 2023, p.2)
- People are sensitive to **advisor quality** (e.g., Meshi et al., 2012).
- Advice utilization in correspondence with advisor quality requires successful **source monitoring**.
- Source monitoring** = the set of processes that are involved in making attributions about the origins of memories, knowledge and beliefs” (Johnson, 1993, p. 3)
- The typical judge-advisor-system paradigm contains no time interval between advice presentation and final estimates.

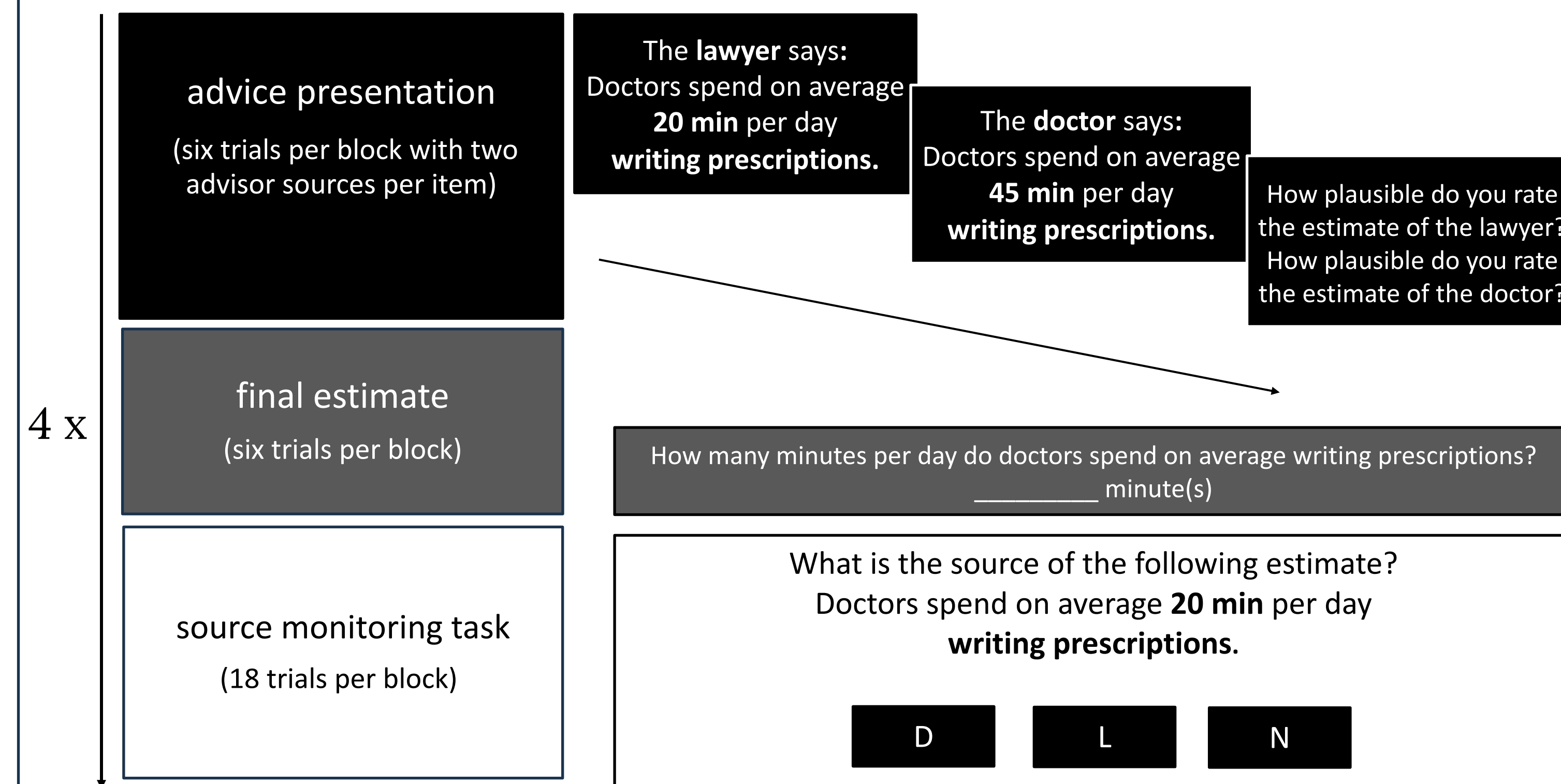


Is source memory a constraint for adaptive advice taking?

Hypotheses

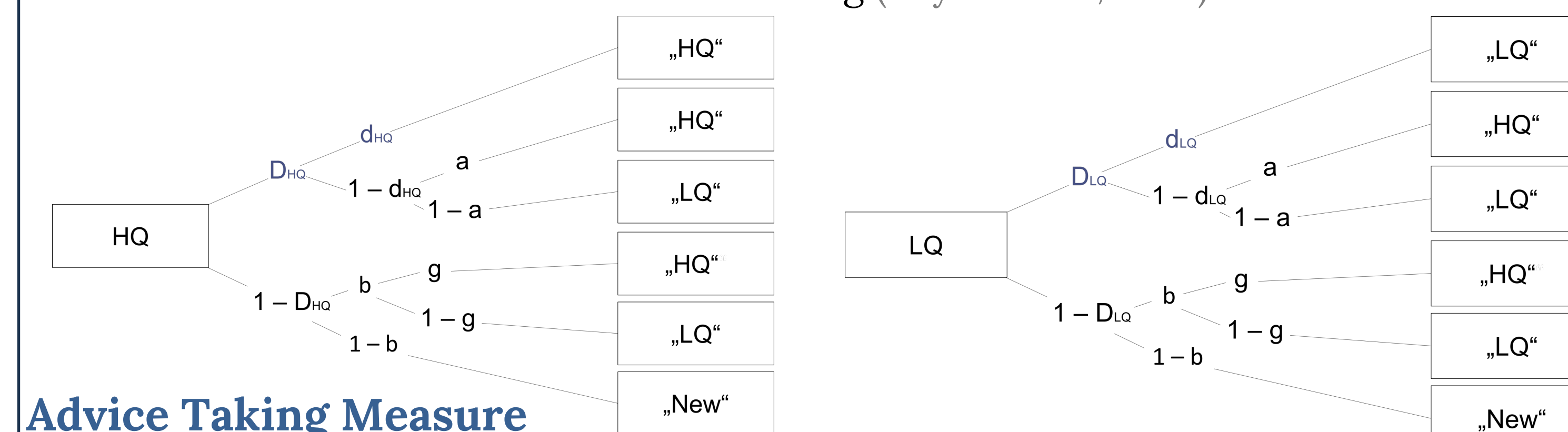
- H1: Advice memory decreases in delayed advice taking (Experiment 1).
- H2: Better source memory for the advisor leads to a higher correspondence between advisor quality and advice weighting (Experiment 1-3).
- H2a: With better source memory for the high-quality advisor (HQ), people show greater advice weighting for this source’s advice.
- H2b: With better source memory for the low-quality advisor (LQ), people show less advice weighting for this source’s advice.

Method



Source Memory Measure

2HT Multinomial Model of Source Monitoring (Bayen et al., 1996)



Advice Taking Measure

Mixed-Effects Regression Weights of Advice (Rebholz et al., 2024)

$$f_{e_{ij}} = w_{HQ,ij} \text{advice}_{HQ,ij} + w_{LQ,ij} \text{advice}_{LQ,ij} + e_{ij}$$

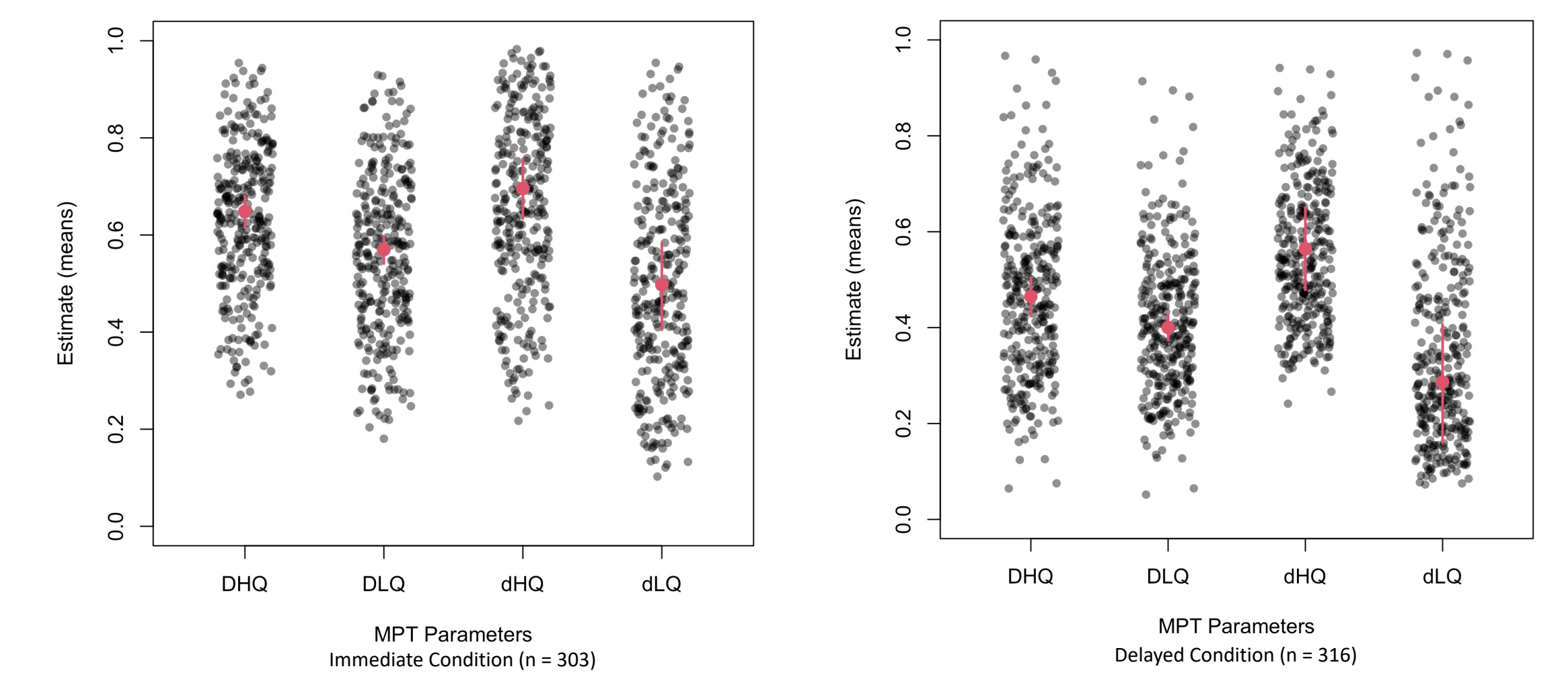
$$w_{HQ,ij} = \beta_{0HQ} + \beta_{DHQ} D_{HQ,i} + \beta_{dHQ} d_{HQ,i} + \alpha_{HQ,i} + \alpha_{HQ,j}$$

$$w_{LQ,ij} = \beta_{0LQ} + \beta_{DLQ} D_{LQ,i} + \beta_{dLQ} d_{LQ,i} + \alpha_{LQ,i} + \alpha_{LQ,j}$$

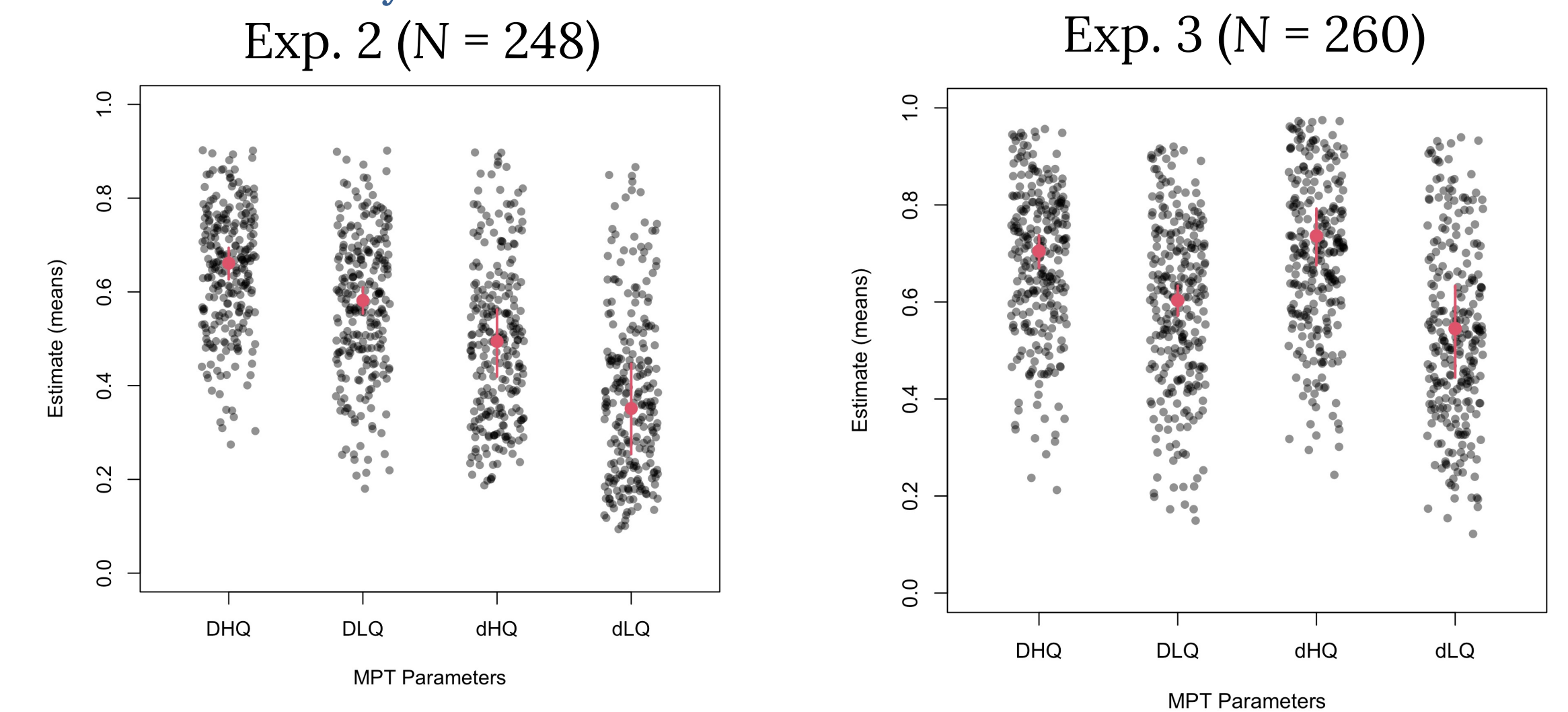
Results

1. Source Memory

a) Advisor Expertise



b) Advisor Accuracy



2. Advice Weighting

Coefficient	Estimate	95% CI	SE	df	t	p
β_{0HQ}	0.63	0.58, 0.67	0.02	5.44	26.66	<.001
β_{0LQ}	0.43	0.38, 0.48	0.02	6.66	17.90	<.001
β_{DHQ}	0.01	-0.00, 0.02	0.01	1274.36	1.34	.180
β_{DLQ}	0.00	-0.01, 0.01	0.00	1207.75	0.26	.798
β_{dHQ}	0.02	0.01, 0.03	0.01	1465.58	4.56	<.001
β_{dLQ}	-0.03	-0.04, -0.02	0.01	1522.08	-5.75	<.001

Discussion & Conclusion

The presented research

- offers a **fine-grained understanding** of the role of memory in advice taking.
- establishes **source memory** as an important **constraining influence** for adaptive advice weighting.
- suggests that the influence of source memory is greater for low-quality compared to high-quality advisor sources.
- demonstrates the practical feasibility of allowing more **flexibility** in the typical advice taking paradigm.

References

- Bayen, U. J., Murnane, K., & Erdfelder, E. (1996). Source discrimination, item detection, and multinomial models of source monitoring. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 22(1), 197–215. <https://doi.org/10.1037/0278-7393.22.1.197>
- Johnson, M. K., Hashtroudi, S., & Lindsay, D. S. (1993). Source monitoring. *Psychological Bulletin*, 114(1), 3–28. <https://doi.org/10.1037/0033-2909.114.1.3>
- Kämmer, J. E., Choshen-Hillel, S., Müller-Trede, J., Black, S. L., & Weibler, J. (2023). A systematic review of empirical studies on advice-based decisions in behavioral and organizational research. *Decision*, 10(2), 107–137. <https://doi.org/10.1037/dec0000199>
- Meshi, D., Biele, G., Korn, C. W., & Heekeren, H. R. (2012). How expert advice influences decision making. *PLoS ONE*, 7(11), e49748. <https://doi.org/10.1371/journal.pone.0049748>
- Rebholz, T. R., Biella, M., & Hütter, M. (2024). Mixed-effects regression weights for advice taking and related phenomena of information sampling and utilization. *Journal of Behavioral Decision Making*, 37(2), e2369.

