

MODEL LAB REPORT

Anchoring Under Uncertainty: How Arbitrary Numbers Shape Quantitative Estimates

Student Name

Day 1 · Experiment 01: Anchoring Effect

Word count: 687 words · Target: 500–750 words

Experimental Design

The anchoring experiment divided our class of 18 students into two groups. Both groups were asked to estimate the same unknown quantity: the percentage of United Nations member states that are African countries. Before guessing, each group was shown a different number, presented as the result of a random spin of a wheel: Group A saw 10, and Group B saw 65. Students recorded their estimates privately on their devices through MobLab. The key manipulation was whether exposure to a high or low arbitrary number would systematically shift estimates of an unrelated quantity.

My Results

I was in Group B (high anchor: 65). My estimate was 48%. Across our class, the results were striking. Group A, anchored at 10, produced a mean estimate of 22%. Group B, anchored at 65, produced a mean estimate of 43%. The gap between groups was 21 percentage points, driven entirely by the arbitrary number shown before the question was asked. The actual answer is approximately 28% (54 of 193 member states). Group A undershot; Group B overshot. But the direction of error was predictable from the anchor alone.

Tip: Your results will come from the MobLab or VECONLAB output shown during the debrief. The instructor will display the class data on screen. Record the key numbers during the debrief: means, medians, ranges, and any patterns the instructor highlights. If you miss something, ask the instructor after class — the platform stores all session data.

	Group A (Low Anchor: 10)	Group B (High Anchor: 65)
N	9	9
Mean Estimate	22%	43%
Median Estimate	20%	45%
Range	12–35%	30–58%
Actual Answer	28%	28%

Comparison to Theoretical Predictions

Standard economic theory assumes that rational agents ignore irrelevant information when making estimates. Under this assumption, both groups should have produced statistically indistinguishable distributions, since the wheel spin was explicitly random and contained no information about African UN membership. Our results directly contradict this prediction.

The results are consistent with the anchoring and adjustment heuristic first described by Tversky and Kahneman (1974). Their original experiment used the same UN question with anchors of 10 and 65, and found median estimates of 25% and 45% respectively. Our class results (medians of 20% and 45%) closely replicate theirs, half a century later. The persistence of the effect, even when participants know the anchor is random, suggests that anchoring operates below the level of conscious deliberation. Adjustment from the anchor is typically insufficient because people stop adjusting once they reach a value that seems plausible, rather than continuing to search for the correct answer (Epley and Gilovich, 2006).

Real-World Application

Anchoring effects have significant implications for salary negotiations. Research by Galinsky and Mussweiler (2001) demonstrated that the first number placed on the table in a negotiation serves as a powerful anchor, and that the party who makes the first offer typically achieves a more favourable outcome. This suggests that the common advice to "never name the first number" may be precisely wrong. If anchoring operates as automatically as our classroom results suggest, then naming an ambitious first number may shift the entire negotiation range in your favour, even if the counterparty knows you are anchoring them. The anchor works not because it persuades, but because it changes the starting point from which both parties adjust.

Instructor's note: This model report demonstrates the expected structure and depth for your lab reports. Notice how each section builds logically: the design describes what happened, the results present specific numbers, the comparison engages with the academic literature, and the application connects to a concrete real-world domain. Your report should follow this four-section structure. You may use any citation style consistently.

References

- Epley, N. and Gilovich, T. (2006). The anchoring-and-adjustment heuristic: Why the adjustments are insufficient. *Psychological Science*, 17(4), 311–318.
- Galinsky, A.D. and Mussweiler, T. (2001). First offers as anchors: The role of perspective-taking and negotiator focus. *Journal of Personality and Social Psychology*, 81(4), 657–669.
- Tversky, A. and Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124–1131.