Predicting Healthcare Policy Preferences In The 2024 U.S. Presidential Election

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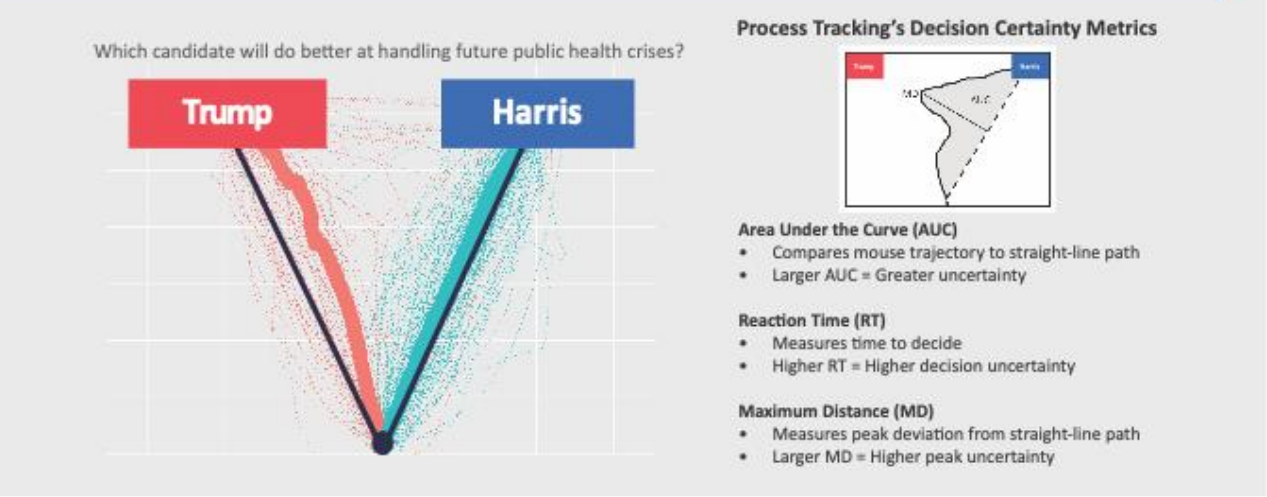
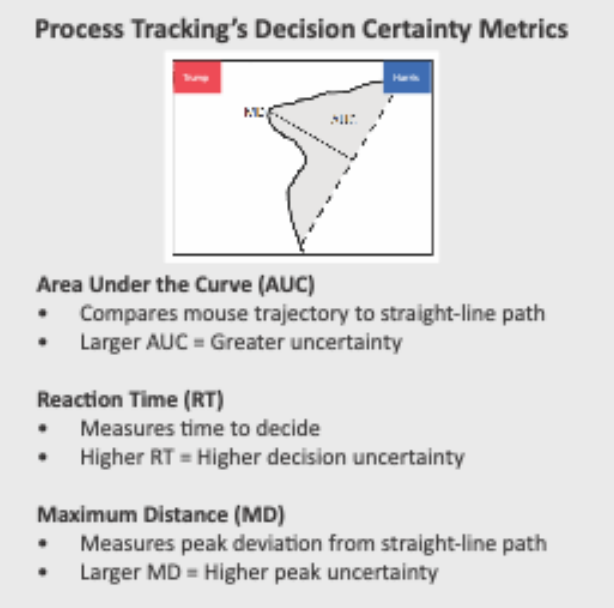
Humans navigate complex decision-making processes, often dealing with conflicting information and desires. Traditional methods, such as self-reports and reaction times, have limitations in capturing these conflicts and the dynamic nature of decision-making. They typically provide a single data point for each decision, failing to capture how conflict might evolve and resolve over the course of making a choice. This limitation has made it difficult to test more sophisticated models of decision-making that propose specific temporal dynamics.

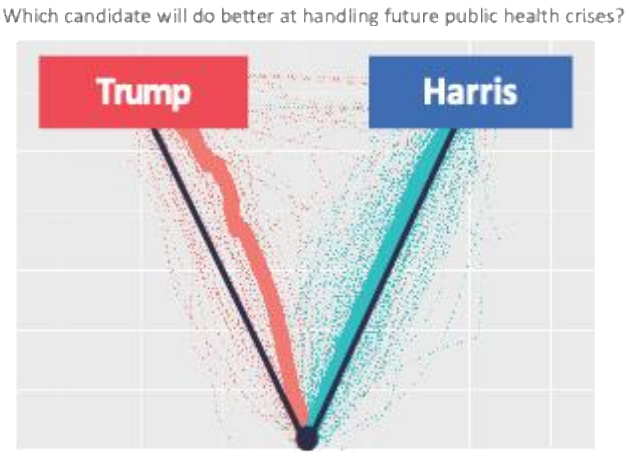
Our Healogix Behavioral Science team conducted a two-wave study to explore how decision-making conflicts arise and resolve in the context of a high-stakes decision, specifically predicting voter behavior in the 2024 U.S. Presidential Election. Voters face complex choices, navigating conflicting desires, values, and information about candidates and policies. The study aimed to use a method known as Process Tracing to analyze how voters' cognitive conflict manifested during their decision-making process and whether it could predict actual voting behavior.

In September 2024 (Wave 1), our team surveyed approximately 200 U.S. voters about their healthcare policy preferences and voting intentions (i.e., Kamala Harris vs. Donald Trump) for the 2024 Presidential Election. Following the election (November 2024, Wave 2), data on actual voting behavior was collected and analyzed.





Using Process Tracing, an advanced form of mouse-tracking, we were able to capture real-time cognitive processes that reveals the complexities of an individual's decision-making process. By recording participants' mouse movements, it tracks metrics like reaction time, maximum deviation, and X-flips to quantify decision conflict. These metrics reveal hesitation, shifts in preference, and final commitment, offering a more dynamic and precise view of decision-making than traditional static measures.



Overall, we found several significant relationships between Wave 1 Process Tracing measures and whether voters followed through on their stated intentions:

1. Reaction Time: $|r| = .43$, $p < .001$
    - The stronger people's intention to vote a certain way, the faster they responded

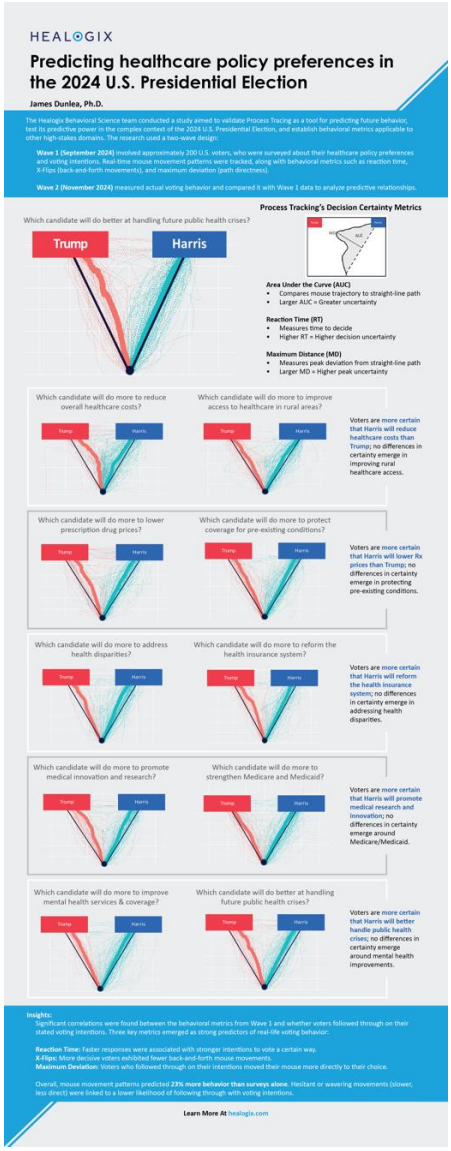
2. X-Flips (Back-and-forth movements): $|r| = .29$, $p < .001$

- More decisive voters showed fewer back-and-forth movements with their mouse

3. Maximum Deviation: $|r| = .25$, $p = .002$
    - People more likely to follow through on their voting intentions moved their mouse more directly to their choice

Beyond standard survey responses, these behavioral signals captured what people couldn't tell us directly - **explaining 23% of whether early intentions predicted final behavior**

Here is the full data set of what we learned:



Process Tracing proved effective in predicting future behavior due to its ability to capture behavioral signals that traditional methods often miss, revealing not just stated intentions but

actual likelihood of follow-through. By tracking the dynamic, real-time evolution of decisions, this method showcased its predictive power in a complex decision context, which in this case was the 2024 Presidential Election. This approach enables researchers to test more sophisticated models of how people make choices, and offers deeper insights into consumer behavior. Ultimately, Process Tracing and the established behavioral metrics can help identify which factors are most influential to decision-making influence decisions, and how individual differences or contextual factors affect the way choices are made, opening new avenues for studying and predicting consumer behavior for other high-stakes domains.