

Slide 1: Research Question

Title: Do People Know What They Want in a Partner?

People are usually very confident about what they want in a romantic partner.

They'll say things like "I want someone fun," or "attractive," or "intelligent."

But the overarching question here is: *do those stated preferences actually predict who they end up choosing?*

In this project, we asked four main questions:

- Can we predict a mutual match using basic demographics like age or race?
- Can we predict a mutual match using people's stated dating preferences?
- If preferences matter, which ones matter the most?
- And overall, do people's theories about what they value line up with their real behavior?

Dataset Overview (Speed Dating Study)

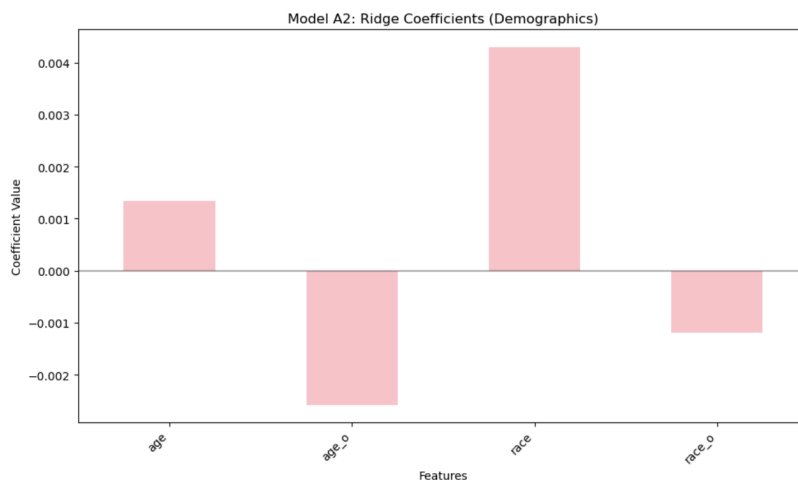
- To answer these questions, we used data from a structured speed-dating study.
- There were 551 participants who rotated through short, 4-minute dates.
Each row in the dataset represents one of these dates between two people.
- Before the dates, participants reported what they *thought* was important to them in a partner.

After each date, they rated their partner on things like attractiveness and fun.

- The key outcome we're trying to predict is whether both people said “yes” afterward → a mutual match.

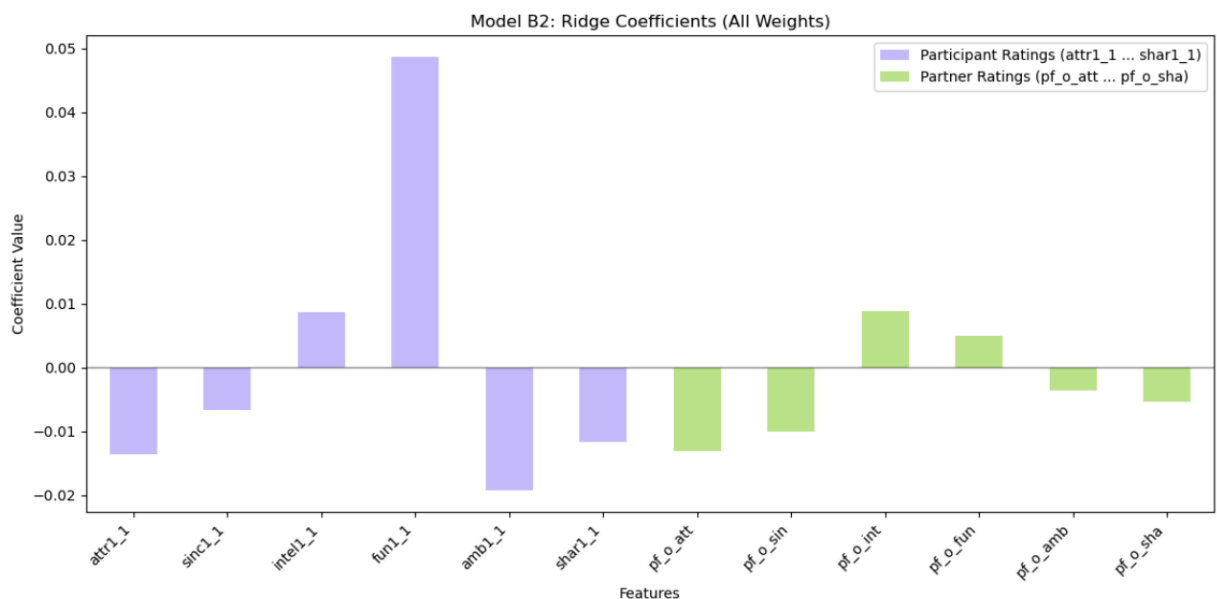
Slide 2 : Results

- First, we looked at demographics alone → things like age and race.
- These did *not* meaningfully predict matches.
The effects were basically near zero, and the AUC was around 0.50.
- That means the model was essentially guessing, like flipping a coin.
So demographics by themselves don't really tell us who will match.



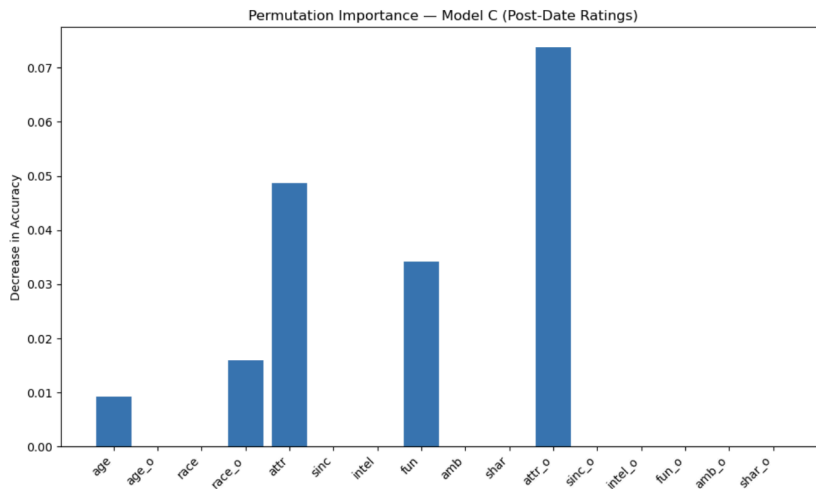
- Next, we looked at people's stated dating preferences (what they *said* they valued before the date)

- These performed slightly better: the model was able to predict matches better than chance, with an AUC around 0.73.
- This is still far from perfect, but it suggests that stated preferences do contain some real signal.
- The most important preference was valuing fun: people who said they cared more about fun were more likely to end up in a match.
- Overall, the effects were small, but they were meaningfully stronger than demographics.



- **Post-date ratings** were the strongest predictors (as expected)
- How attractive and how fun someone *seemed after the interaction* mattered the most.
- These models had the highest accuracy and the strongest AUC.

- This suggests that impressions formed during the interaction are probably much more informative than what people say they want beforehand



Slide 3: What Did We Learn?

- Putting everything together, a few clear patterns emerge.
- First, demographics like age and race aren't very useful for predicting romantic matches (surprisingly?)
- Second, people do have *some* insight into what matters to them (especially fun), but their stated preferences are still weak predictors of actual decisions.
- There's a noticeable gap between what people *think* they value and what actually influences their choices.
- Overall, this suggests that romantic decision-making might be less about fixed preferences and more about real-time social chemistry.