Efficient coverage for newly developed vaccines requires knowing which groups of individuals will accept the vaccine immediately and which will take longer to accept or never accept.

In this study, we assumed that, within the context of COVID-19 vaccination, non-vaccine refuser Americans behaved as either success-based learners, making decisions based on others' satisfaction, or as myopic rationalists, attending to their own immediate perceived benefit.

We used COVID-19 vaccination data to fit a mechanistic model capturing the distinct effects of the two types on the vaccination progress.

We estimated that about half of Americans behaved as myopic rationalists with a high variation across the states.

The proportion was correlated with the vaccination coverage, proportion of votes in favor of Democrats in 2020 presidential election, and education score.

The findings reveal the impact of the proportions of the decision-makers on the vaccination speed and, consequently, overall vaccination coverage.

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