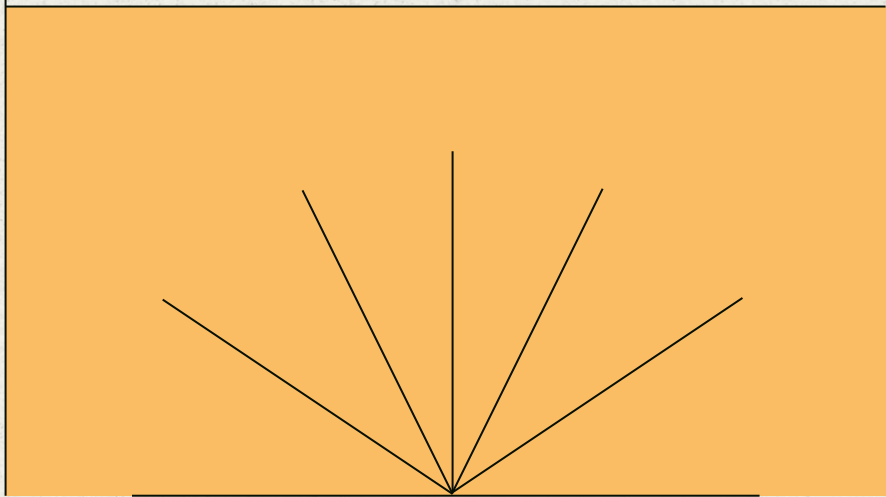
TRINITY COLLEGE DUBLIN

OLÍVIA FREITAS

Applied Statistical Analysis II POP77004

REPLICATION STUDY



PAPER:

The Cultural Origins of Populism

Authors: Margalit, Y., Raviv, S., & Solodoch, O. 2022

Source: Social Science Research Network.
https://doi.org/10.2139/ssrn.4001543

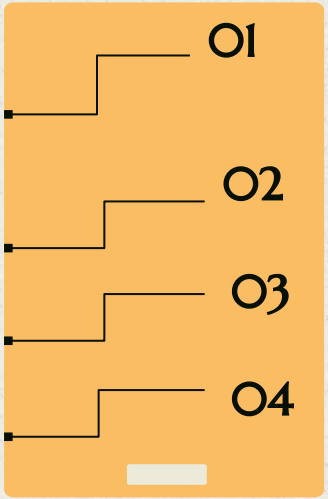
WHAT IS THE PAPER ABOUT?

The paper explores why populism emerges. Specifically, it looks at how cultural factors influence people's voting behavior

Where?
Switzerland, Germany, Denmark, France, United Kingdom, Hungary, Italy, Netherlands, Poland, and Sweden

Hypotheses

The authors propose several hypotheses related to the cultural origins of populism:



Ethno-Cultural Change: Concerns about ethno-cultural change induced by immigration play a central role in understanding the populist vote.

Rural Resentment: Rural resentment contributes to populist voting behavior, although to a lesser extent.

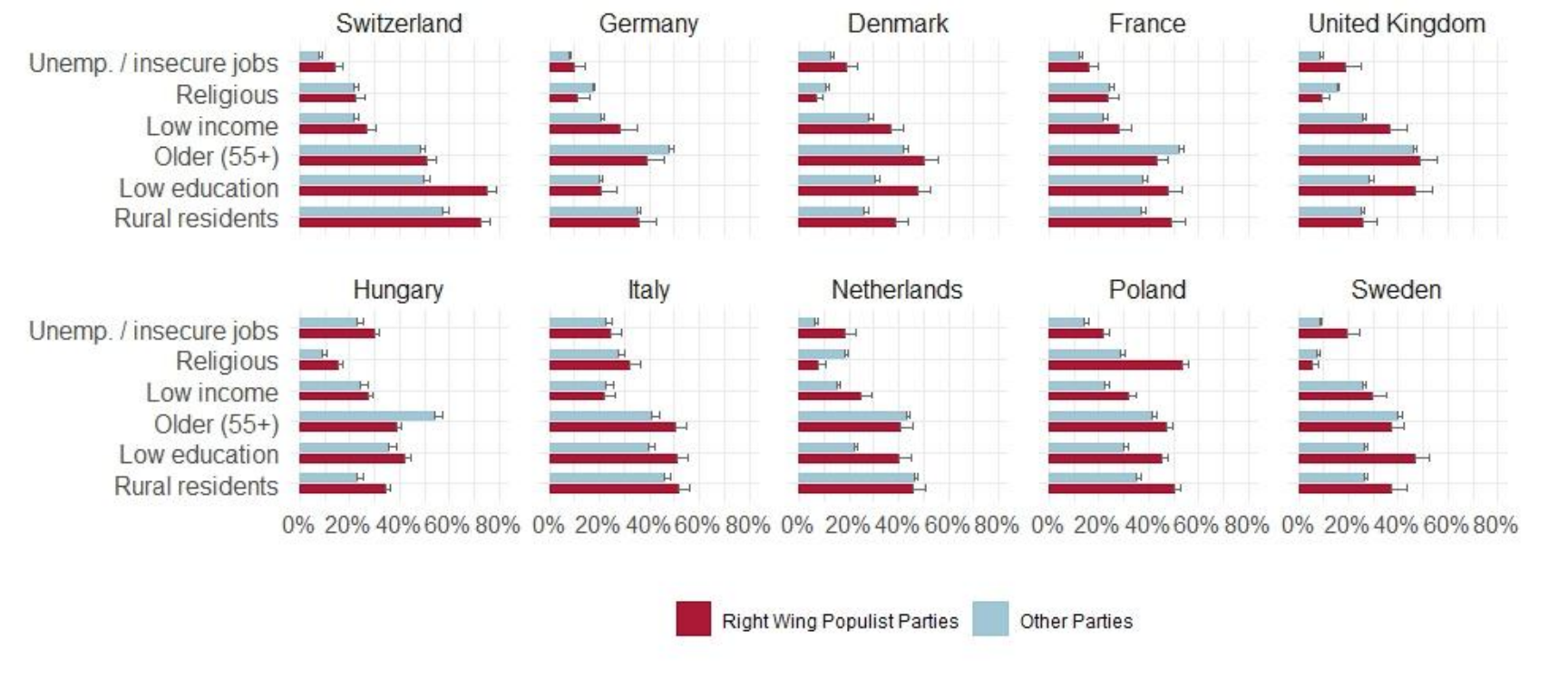
Status Anxiety: Feelings of status anxiety also influence populist choices.

Other Storylines: Explanations centered on communal disintegration or an intergenerational values divide are pertinent in specific cases.

Research Questions

01	Group Size	How sizable is the group to which each storyline pertains?
02	Distinctiveness	How well does the grievance associated with each storyline distinguish right-wing populist voters from voters of other parties?
03	Consistency Across Countries	What extent are the findings consistent across different countries?

THE ORIGINAL STUDY



KEY INSIGHTS

Ethno-Cultural Change

Concerns about cultural change due to immigration play a central role in understanding the populist vote.

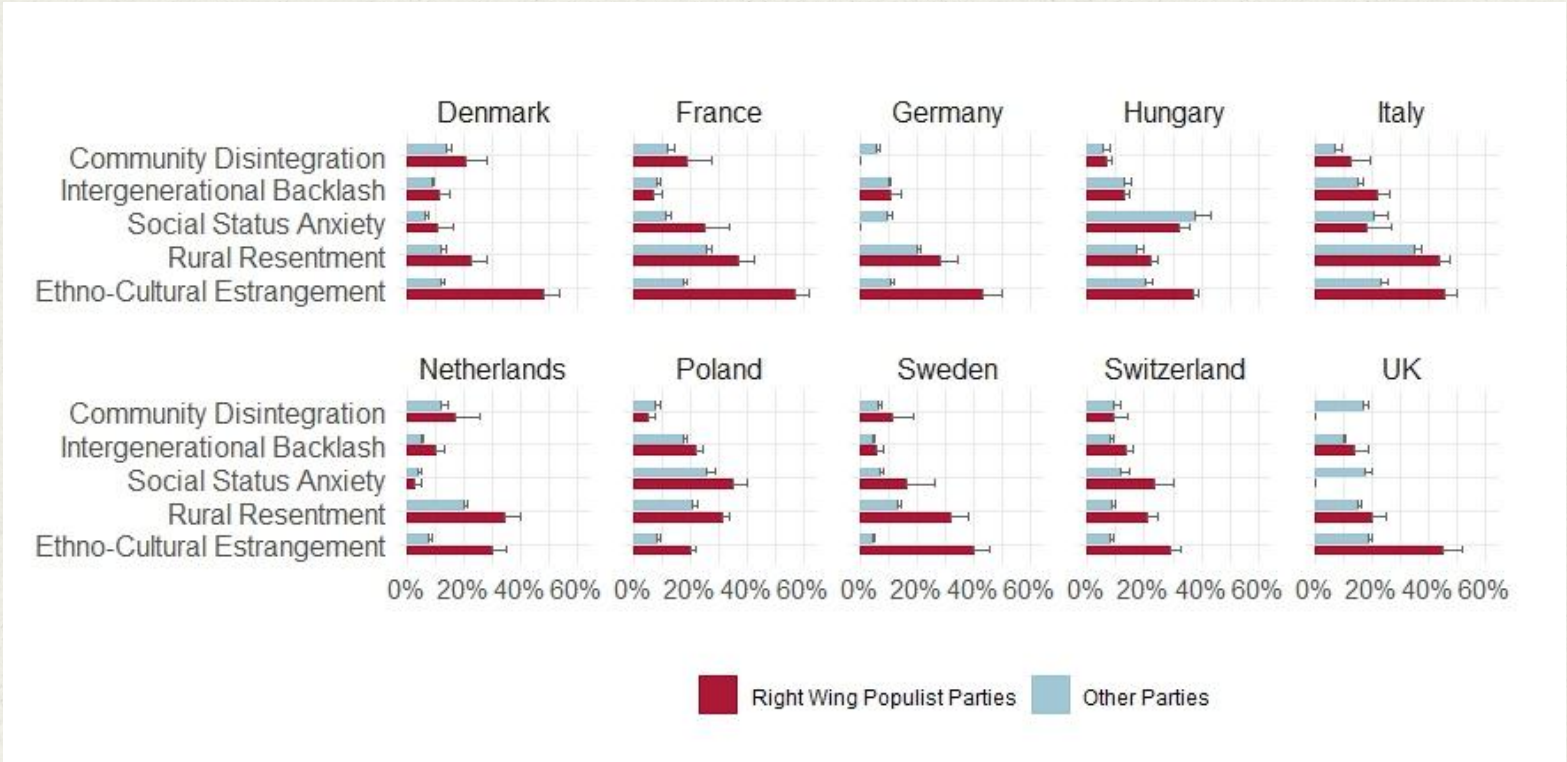
Rural Resentment and Status Anxiety

These factors also contribute, but to a lesser extent.

Other Storylines

Some cultural explanations (like communal disintegration or intergenerational values) matter only in specific cases.

THE ORIGINAL STUDY



KEY INSIGHTS

Community Disintegration

This factor seems to have varying influence across countries.

Intergenerational Backlash

This factor appears to have a minor influence on voting behavior.

Social Status Anxiety

This factor seems to have a moderate influence on voting behavior.

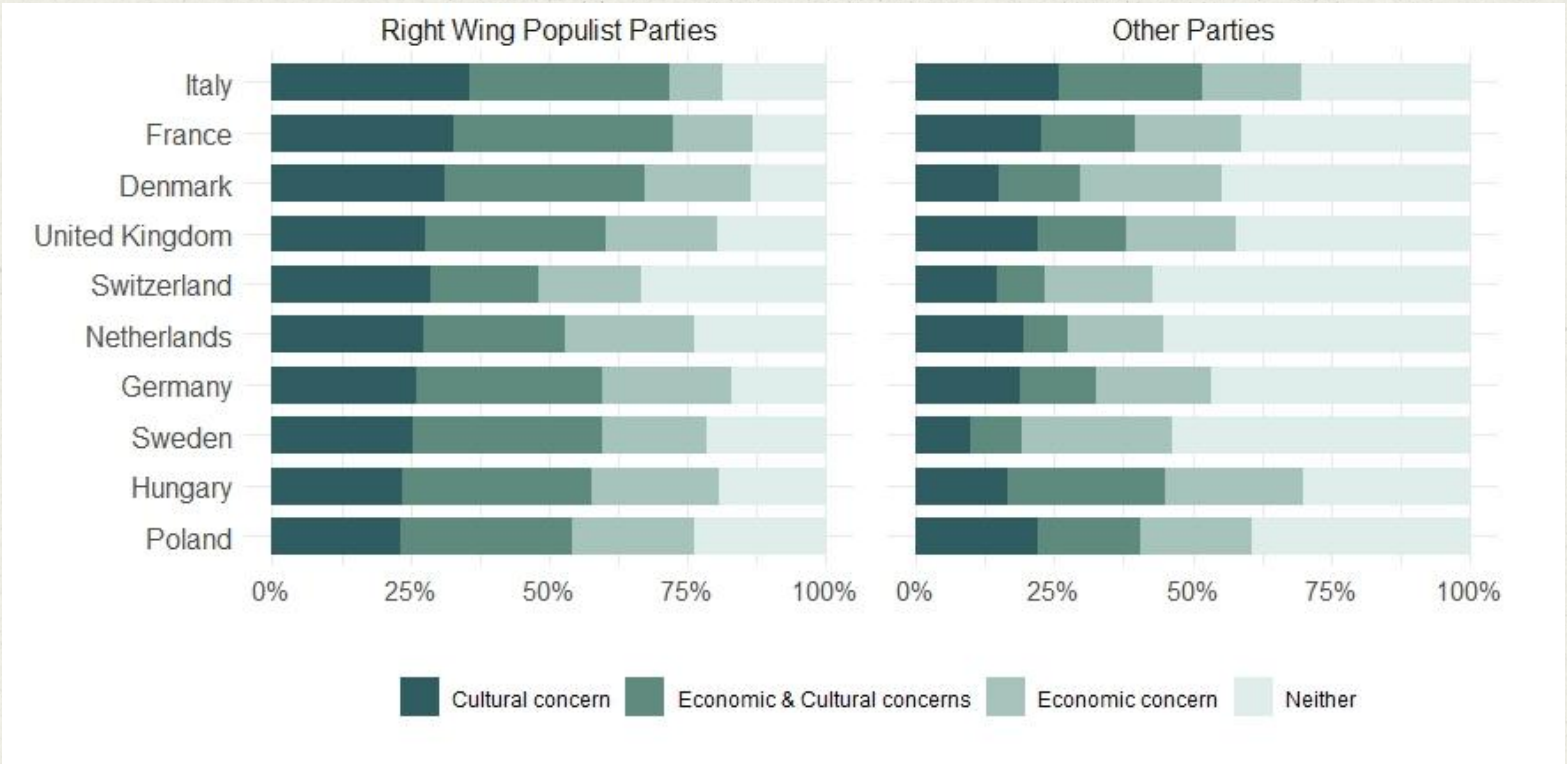
Rural Resentment

This factor appears to have a significant influence in some countries.

Ethno-Cultural Estrangement

This factor appears to have a significant influence in some countries.

THE ORIGINAL STUDY



KEY INSIGHTS

Cultural Concern

In some countries, a significant portion of the vote share for right-wing populist parties is driven by cultural concerns.

Economic & Cultural Concerns

In other countries, both economic and cultural concerns contribute to the vote share for right-wing populist parties.

Economic Concern

In yet other countries, economic concerns play a major role in driving the vote share for right-wing populist parties.

Neither

In some cases, neither economic nor cultural concerns seem to significantly influence the vote share for right-wing populist parties.

REPLICATION

Investigating Interaction Effects

THE RATIONALE BEHIND INVESTIGATING INTERACTION EFFECTS

- We can understand whether the relationship between two variables changes based on their combined influence.
- We focused on the interaction between “economic insecurity” and “cultural concern” in shaping voting behavior.
- Interaction effects can reveal nuances that individual main effects might miss, providing a richer understanding of the data.

R

```r
# To understand whether the relationship between two variables changes based on their combined influence, let's explore interaction effect
# Specifically, we will focus on the interplay between "economic insecurity" and "cultural concern" in shaping voting behavior.

# Load necessary libraries
library(ggplot2)

# Create an interaction term
fig4_sumcult$interaction <- fig4_sumcult$economicisequrity * fig4_sumcult$culturalconcern

# Fit a linear regression model with the interaction term
model_with_interaction <- lm(vote_choice_PopList_RightPop ~ economicisequrity + culturalconcern + interaction, data = fig4_sumcult)

# Print the summary
summary(model_with_interaction)


# Predicted vote
predicted_vote <- predict(model_with_interaction, newdata = fig4_sumcult)

# Create a data frame
df <- data.frame(economic_insecurity = fig4_sumcult$economicisequrity,
                 predicted_vote = predicted_vote,
                 cultural_concern = fig4_sumcult$culturalconcern)

# Scatter plot
ggplot(df, aes(x = economic_insecurity, y = predicted_vote, color = cultural_concern)) +
  geom_point() +
  labs(x = "Economic Insecurity", y = "Predicted Voting Choice",
       title = "Interaction Effect: Economic Insecurity vs. Voting Choice",
       color = "Cultural Concern") +
  theme_minimal()
```

OUR ANALYSIS

Interaction Term
We created an “interaction term” by multiplying the values of economic insecurity and cultural concern. This term captures the joint effect of both factors.

Linear Regression Model
We build a model that predicts voting choices based on economic insecurity, cultural concern, and their interaction.
The model estimates how changes in these factors impact the predicted vote.

Model Summary
We summarised the model using the summary() function.
It shows coefficients (effects) for each factor and the interaction term.
We checked if the interaction term is statistically significant (low p-value).

Predicted Vote
We calculated the predicted vote using the model.
This tells us what voting choice the model expects based on the input factors.

Scatter Plot
We created a scatter plot to visualise the relationship.

RESULTS

```
Call:
lm(formula = vote_choice_PopList_RightPop ~ economicisequrity +
    culturalconcern + interaction, data = fig4_sumcult)

Residuals:
     Min       1Q   Median       3Q      Max
-0.31541 -0.23269 -0.08583 -0.08583  0.91417

Coefficients:
                  Estimate Std. Error t value Pr(>|t|)
(Intercept)       0.085833   0.002696  31.835   <2e-16 ***
economicisequrity 0.080816   0.004681  17.263   <2e-16 ***
culturalconcern   0.146853   0.004767  30.805   <2e-16 ***
interaction       0.001912   0.007370   0.259    0.795
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.3678 on 44567 degrees of freedom
Multiple R-squared:  0.05261,   Adjusted R-squared:  0.05255
F-statistic:   825 on 3 and 44567 DF,  p-value: < 2.2e-16
```

RESULTS

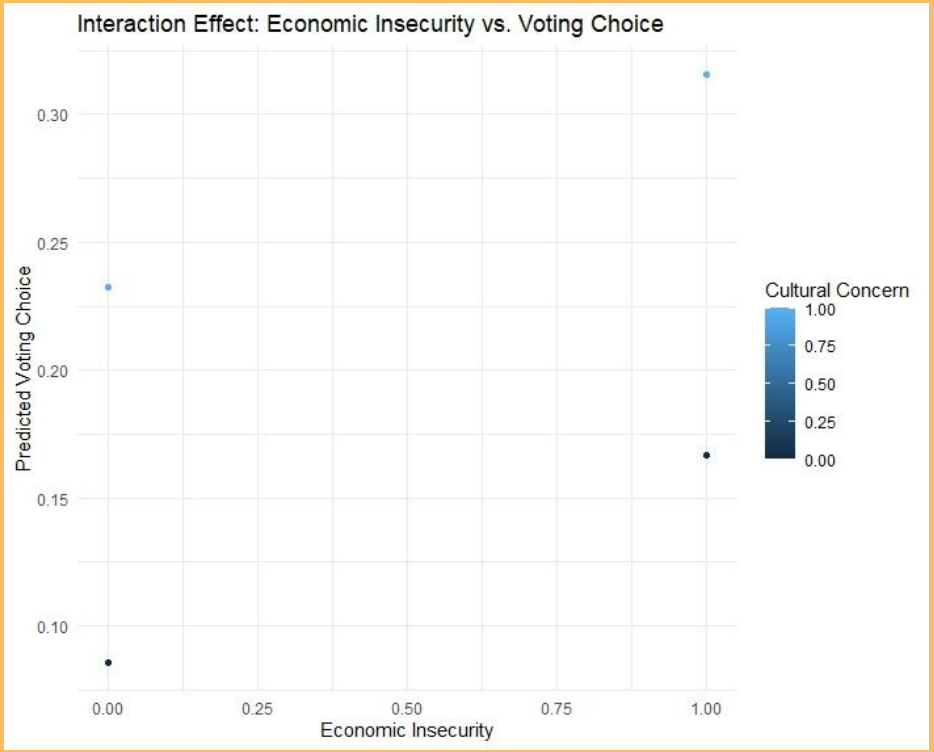
Coefficients:

- **Intercept (Constant):** The estimated intercept (constant) is approximately 0.0858. This represents the predicted voting choice when both economicisequrity and culturalconcern are zero.
- **Economic Insecurity (economicisequrity):** For each unit increase in economic insecurity, the predicted voting choice increases by approximately 0.0808 (holding other variables constant).
- **Cultural Concern (culturalconcern):** For each unit increase in cultural concern, the predicted voting choice increases by approximately 0.1469 (holding other variables constant).
- **Interaction Term:** The interaction term (interaction) does not appear to be statistically significant. Its coefficient is approximately 0.0019, and the p-value is 0.795 (greater than the common significance level of 0.05).

RESULTS

- **Residuals:**
  The residuals represent the differences between the actual observed values and the predicted values. They have a range from approximately -0.3154 to 0.9142.
  The median residual is -0.0858, indicating that, on average, the model tends to slightly overestimate the voting choice.

- **Model Fit:**
  The multiple R-squared value is 0.0526, which means that approximately 5.26% of the variability in the voting choice can be explained by the model.
  The adjusted R-squared value is similar, indicating that the model's explanatory power is limited.
  The F-statistic tests the overall significance of the model, and the extremely low p-value (< 2.2e-16) suggests that the model is statistically significant.



Interaction Effects

BACKGROUND

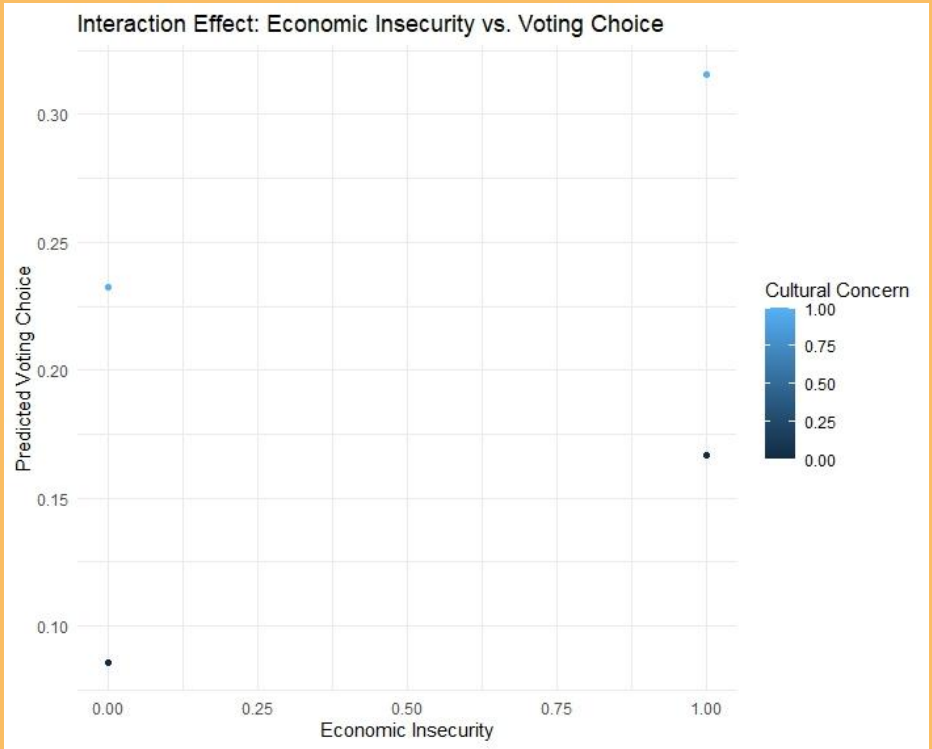
We studied how “economic insecurity” and “cultural concern” influence voting behavior.

We created a model to predict voting choices based on these factors.

FINDINGS

Economic Insecurity: When economic insecurity increases, people tend to vote differently.

Cultural Concern: People’s cultural concerns also impact their voting choices.



Interaction Effects

We explored whether the combination of economic insecurity and cultural concern has a unique effect.

Surprisingly, the interaction term didn't significantly affect voting behavior.

Model Strength:
Our model explains about 5% of the variability in voting choices.
While statistically significant, other factors may play a role too.

Further investigation or additional variables might improve the model's explanatory power.

Overall, while individual factors matter (economic insecurity and cultural concern), their combined effect does not substantially alter voting behavior in this context.

THANKS!

CREDITS: This presentation template was created by **Slidesgo**, and includes icons by **Flaticon**, and infographics & images by **Freepik**