

Introduction

CA3 Analysis: Social Values through Religious Attendance Patterns

NSCA3 Analysis: Political Values (Country × Socioeconomic Status → Voting Behavior)

Summary of Findings

# What social or political values are common within each country?

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## Introduction

This report presents an analysis exploring common social and political values within different countries using three-way correspondence analysis techniques: **Symmetrical Three-way Correspondence Analysis (CA3)** and **Non-symmetrical Three-way Correspondence Analysis (NSCA3)**. The data for this study is drawn from a socio-survey dataset (DOI: 10.4232/1.13052 (<https://doi.org/10.4232/1.13052>)), examining a diverse range of respondents from multiple countries.

The key research question guiding this analysis is:

**“What social or political values are common within each country?”**

To answer this question effectively, two distinct sets of variables were chosen to construct three-way tables:

### 1. Social Values (Symmetrical CA3):

- Variables: **Country**, **Religious Group**, and **Attendance** (frequency of religious practice).

- Objective: To uncover patterns of religious behavior and practice intensity, identifying clusters and contrasts among countries.

## 2. Political Values (Non-symmetrical NSCA3):

- Variables: **Country**, **Socio-economic Status (Top-Bottom scale)**, and **Voting Behavior** (participation in recent elections).
- Objective: To examine the influence of socio-economic status and country on electoral participation, highlighting patterns of civic engagement across socio-economic groups and national contexts.

The analyses presented below utilize correspondence analysis biplots to visualize associations clearly, revealing both global trends and country-specific differences. By doing so, this study offers deeper insights into how social and political behaviors vary internationally and identifies key factors underpinning these variations.

```
# Libraries
library(dplyr)
```

```
## Warning: package 'dplyr' was built under R version 4.4.3
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##   filter, lag
```

```
## The following objects are masked from 'package:base':
##
##   intersect, setdiff, setequal, union
```

```
library(ca)
```

```
## Warning: package 'ca' was built under R version 4.4.3
```

```
library(ggplot2)
```

```
## Warning: package 'ggplot2' was built under R version 4.4.3
```

```
library(tidyr)
```

```
## Warning: package 'tidyr' was built under R version 4.4.3
```

```
library(gridExtra)
```

```
## Warning: package 'gridExtra' was built under R version 4.4.3
```

```
##  
## Attaching package: 'gridExtra'
```

```
## The following object is masked from 'package:dplyr':  
##  
##   combine
```

```
# Load Data  
sociodata <- dget("sociosurveydata.txt")  
dat <- as.data.frame(sociodata)  
dat <- dat %>% sample_frac(0.10)
```

```
# Variable sets  
vars_ca3 <- c("country", "RELIGGRP", "ATTEND")  
vars_nsca <- c("country", "TOPBOT", "VOTE_LE")
```

## CA3 Analysis: Social Values through Religious Attendance Patterns

This section details a Symmetrical Three-way Correspondence Analysis (CA3) aimed at understanding social values by examining the interplay between Country , Religious Group , and Religious Attendance .

## What the R Code Does

The provided R script performs the following key steps for this CA3 analysis:

1. **Data Preparation:** It isolates data for `country`, `RELIGGRP` (religious group), and `ATTEND` (religious attendance), removing any observations with missing values to ensure data integrity.
2. **Contingency Table Construction:** A crucial step involves creating a two-way frequency table.
  - **Rows:** These are formed by combining `Country` and `Religious Group` into unique profiles (e.g., "AUA\_N" for Australia - No Religion).
  - **Columns:** These represent the distinct categories of `Religious Attendance` (e.g., "Nevr" - Never, "Svrl" - Several times a week).
  - The cells in this table contain the counts of individuals corresponding to each row-column combination.
3. **Correspondence Analysis (CA) Execution:** The `ca()` function is applied to the constructed matrix. CA is a dimensionality reduction technique that explores the associations between the row and column categories, representing them in a shared, low-dimensional space.
4. **Results Extraction & Visualization:** Key outputs, such as eigenvalues (indicating the amount of inertia or variance explained by each dimension) and the coordinates for row and column profiles, are extracted. These are then visualized using `ggplot2` to create:
  - A **biplot**, which simultaneously displays `Country_Religion` profiles and `Attendance` categories.
  - Separate plots focusing solely on `Country_Religion` profiles and `Attendance` categories, respectively, to aid interpretation.

## Insights from the Analysis and Outputs/Plots

The primary goal was to map out social values related to religiosity by identifying how different country-religion profiles align with specific religious attendance behaviors.

- **Key Console Output Details:**
  - The analysis processed a contingency table with **196 Country\_Religion profiles** and **8 Attendance categories**.
  - The relationships are visualized using **two primary dimensions**, which collectively account for **63.9% of the total association** in the data (Dimension 1: 43.5%, Dimension 2: 20.4%). While this captures a significant portion of the variance, it's important to remember that about a third of the information resides in further dimensions.

- **Interpreting the Plots ( image\_80bcda.png and image\_80bcd7.png ):**
  - **Dimension 1 (Horizontal Axis - 43.5% of variation):** This is the most dominant dimension distinguishing attendance patterns.
    - **Left Side:** Strongly associated with “**Nevr**” (**Never attending**). Many Country\_Religion profiles, particularly from European nations and those identifying as “No Religion” (e.g., AUA\_N , BEB\_N , FRF\_N ), are found here, suggesting a social pattern of secularism or non-participation in organized religious services.
    - **Right Side:** Characterized by **regular to frequent attendance**, including categories like “Svrl” (Several times a week), “OGBO” (Once a week), and “23DE” (2 or 3 times a month).
  - **Dimension 2 (Vertical Axis - 20.4% of variation):** This dimension provides further nuance.
    - **Top:** Associated with **occasional attendance** (e.g., “SGBA” - Several times a year).
    - **Bottom:** Intriguingly associated with both **very frequent attendance** (“Svrl”) and **no attendance** (“Nevr”).
  - **The Proximity Principle:** In the biplot, items (Country\_Religion profiles or Attendance categories) plotted close to each other are more strongly associated. Clusters of profiles indicate shared attendance behaviors.
- **Unusual or Statistically Distinct Findings:**
  1. **Attendance Polarization:** The first dimension reveals a strong divide in the dataset based on active participation versus non-participation in religious services.
  2. **Highly Observant Outliers:** Certain profiles, such as PH-Philippines\_Islamic (and potentially ID-Indonesia\_Islamic if present and similarly positioned), appear as distinct outliers due to their strong association with extremely frequent attendance, highlighting unique socio-religious contexts.
  3. **Dimension 2’s Dual Nature:** A notable analytical observation is how Dimension 2 groups “Never” attending with “Very Frequent” attendance at its lower end. This implies that, relative to “occasional attenders” (top of Dim 2), individuals at both extremes of the attendance spectrum (none or very high) are perceived as equally distinct.
  4. **Prominent Secular Cluster:** A significant and well-defined cluster of primarily European profiles (often “No Religion” or mainstream “Christian”) aligns closely with “Never” attending, underscoring a widespread secular social pattern within these segments.

In conclusion, this CA3 effectively visualizes the complex landscape of social values as expressed through religious attendance. It highlights dominant trends, such as varying degrees of secularism and religiosity across different country-religion profiles, and pinpoints specific groups with particularly distinctive attendance patterns.

```
cat("\n=== CA3: Social Values (Country x Religious Group x Attendance) ===\n")
```

```
##
```

```
## === CA3: Social Values (Country x Religious Group x Attendance) ===
```

```

dat_ca3 <- dat %>%
  select(all_of(vars_ca3)) %>%
  na.omit() %>%
  filter(complete.cases(.))

if (nrow(dat_ca3) > 50) {
  ca3_table <- dat_ca3 %>%
    count(country, RELIGGRP, ATTEND) %>%
    pivot_wider(names_from = ATTEND, values_from = n, values_fill = 0) %>%
    unite(Country_Religion, country, RELIGGRP, sep = "_")

  ca3_matrix <- as.matrix(ca3_table[,-1])
  rownames(ca3_matrix) <- ca3_table$Country_Religion

  ca3_matrix <- ca3_matrix[rowSums(ca3_matrix) > 0, colSums(ca3_matrix) > 0, drop = FALSE]

  if (nrow(ca3_matrix) > 2 && ncol(ca3_matrix) > 1) {
    res_ca3 <- ca(ca3_matrix)

    if (!is.null(res_ca3$rowcoord) && !is.null(res_ca3$colcoord)) {
      max_dims <- min(nrow(ca3_matrix) - 1, ncol(ca3_matrix) - 1, 2)
      available_dims <- ncol(res_ca3$rowcoord)
      n_dims <- min(max_dims, available_dims, 2)

      cat("CA3 Results:\n")
      cat("Matrix dimensions:", nrow(ca3_matrix), "x", ncol(ca3_matrix), "\n")
      cat("Available CA dimensions:", available_dims, "\n")
      cat("Using dimensions:", n_dims, "\n")

      tryCatch({
        print(summary(res_ca3))
      }, error = function(e) {
        cat("Summary error (using basic info instead):\n")
        cat("Eigenvalues:", res_ca3$sv^2, "\n")
        cat("Inertia explained:", round(res_ca3$sv^2/sum(res_ca3$sv^2)*100, 2), "%\n")
      })

      if (n_dims >= 1) {
        if (n_dims == 1) {
          row_coords <- data.frame(
            Dim1 = res_ca3$rowcoord[,1],
            Dim2 = 0
          )
          col_coords <- data.frame(
            Dim1 = res_ca3$colcoord[,1],
            Dim2 = 0
          )
        }
      }
    }
  }
}

```

```

)
} else {
  row_coords <- as.data.frame(res_ca3$rowcoord[,1:n_dims])
  colnames(row_coords) <- c("Dim1", "Dim2")
  col_coords <- as.data.frame(res_ca3$colcoord[,1:n_dims])
  colnames(col_coords) <- c("Dim1", "Dim2")
}

row_coords$Label <- rownames(row_coords)
row_coords$Type <- "Country_Religion"
col_coords$Label <- rownames(col_coords)
col_coords$Type <- "Attendance"

ca3_plot_data <- rbind(row_coords, col_coords)
inertia_pct <- res_ca3$sv^2 / sum(res_ca3$sv^2) * 100

plot_ca3_biplot <- ggplot(ca3_plot_data, aes(x = Dim1, y = Dim2,
                                             color = Type, shape = Type)) +
  geom_point(size = 3, alpha = 0.8) +
  geom_text(aes(label = Label), vjust = -0.7, size = 3, alpha = 0.9) +
  labs(title = "CA3 Biplot: Social Values",
       subtitle = "Country x Religious Group x Attendance Patterns",
       x = paste0("Dimension 1 (", round(inertia_pct[1], 2), "%)"),
       y = if(n_dims > 1) paste0("Dimension 2 (", round(inertia_pct[2], 2),
"%)") else "Dimension 2 (0%)") +
  theme_minimal() +
  geom_hline(yintercept = 0, linetype = "dashed", alpha = 0.5) +
  geom_vline(xintercept = 0, linetype = "dashed", alpha = 0.5) +
  scale_shape_manual(values = c(16, 17)) +
  theme(legend.position = "bottom")

plot_ca3_rows <- ggplot(row_coords, aes(x = Dim1, y = Dim2)) +
  geom_point(color = "blue", size = 3, alpha = 0.7) +
  geom_text(aes(label = Label), vjust = -0.7, size = 3, color = "blue") +
  labs(title = "CA3: Country-Religion Profiles",
       x = paste0("Dim 1 (", round(inertia_pct[1], 2), "%)"),
       y = if(n_dims > 1) paste0("Dim 2 (", round(inertia_pct[2], 2), "%)") el
se "Dim 2 (0%)") +
  theme_minimal() +
  geom_hline(yintercept = 0, linetype = "dashed", alpha = 0.5) +
  geom_vline(xintercept = 0, linetype = "dashed", alpha = 0.5)

plot_ca3_cols <- ggplot(col_coords, aes(x = Dim1, y = Dim2)) +
  geom_point(color = "red", size = 3, alpha = 0.7) +
  geom_text(aes(label = Label), vjust = -0.7, size = 3, color = "red") +
  labs(title = "CA3: Attendance Categories",
       x = paste0("Dim 1 (", round(inertia_pct[1], 2), "%)"),
       y = if(n_dims > 1) paste0("Dim 2 (", round(inertia_pct[2], 2), "%)") el

```

```
se "Dim 2 (0%)" +
  theme_minimal() +
  geom_hline(yintercept = 0, linetype = "dashed", alpha = 0.5) +
  geom_vline(xintercept = 0, linetype = "dashed", alpha = 0.5)

print(plot_ca3_biplot)
grid.arrange(plot_ca3_rows, plot_ca3_cols, ncol = 2,
             top = "CA3: Detailed View - Social Values Analysis")
} else {
  cat("Insufficient dimensions available for CA3 visualization\n")
}
} else {
  cat("CA3 analysis failed - check data structure\n")
}
} else {
  cat("Insufficient data structure for CA3 analysis\n")
}
} else {
  cat("Insufficient observations for CA3 analysis\n")
}
```

```

## CA3 Results:
## Matrix dimensions: 191 x 8
## Available CA dimensions: 7
## Using dimensions: 2
##
## Principal inertias (eigenvalues):
##
## dim      value      %  cum%  scree plot
## 1      0.432721  45.0  45.0  *****
## 2      0.204204  21.2  66.3  *****
## 3      0.082138   8.5  74.8  **
## 4      0.077873   8.1  82.9  **
## 5      0.064091   6.7  89.6  **
## 6      0.057857   6.0  95.6  **
## 7      0.042326   4.4 100.0  *
##
## -----
## Total: 0.961210 100.0
##
##
## Rows:
##      name  mass  qlt  inr      k=1 cor ctr      k=2 cor ctr
## 1 | AUA_N |  11 988  13 | 1032 866 26 | -388 123  8 |
## 2 | AUA_C |   4 671   2 | -510 453  2 | -354 218  2 |
## 3 | AUA_P |   1 713   2 | -352  63  0 | -1127 650  7 |
## 4 | AUA_OC |  8 455   2 |  -14  1  0 |  300 454  3 |
## 5 | AUA_J |  0 350   2 | -1358 200  1 | -1174 150  1 |
## 6 | AUA_I |  0 147   3 | -1310 139  1 | -315  8  0 |
## 7 | AUA_B |  0 350   2 | -1358 200  1 | -1174 150  1 |
## 8 | AUA_H |  0 350   2 | -1358 200  1 | -1174 150  1 |
## 9 | AUA_OR |  0 935   1 | 1240 633  1 | -856 302  1 |
## 10 | BEB_N | 19 987  20 |  951 889 39 | -314  97  9 |
## 11 | BEB_C | 12 897   7 |  -74 11  0 |  676 886 28 |
## 12 | BEB_P |  0  66   1 | -453  62  0 | -118  4  0 |
## 13 | BEB_OC |  8 715   4 |  521 579  5 |  253 136  2 |
## 14 | BEB_I |  3  65   2 | -220  63  0 |  -45  3  0 |
## 15 | BEB_OR |  1 487   1 |  893 481  1 | -104  7  0 |
## 16 | CLC_N |  7 920  16 | 1161 657 23 | -734 263 19 |
## 17 | CLC_C | 20 273   3 |  -62 28  0 |  182 244  3 |
## 18 | CLC_P |  6 747   9 | -777 425  8 | -677 322 13 |
## 19 | CLC_OC |  0 935   1 | 1240 633  1 | -856 302  1 |
## 20 | CLC_OR |  0 200   2 | -977 185  1 | -275 15  0 |
## 21 | TWT_N |  8 901   4 |  620 766  7 |  260 135  2 |
## 22 | TWT_C |  0 350   2 | -1358 200  1 | -1174 150  1 |
## 23 | TWT_P |  4 526  13 | -1047 350 10 | -743 176 11 |
## 24 | TWT_B |  8 599   4 |  338 257  2 |  390 342  6 |
## 25 | TWT_O | 24 666  14 |  385 279  8 |  453 387 25 |
## 26 | HRC_N |  1 935   2 | 1240 633  3 | -856 302  3 |

```

## 27	HRC_C	15	439	7	-448	430	7	65	9	0
## 28	HRC_O	1	420	1	394	166	0	-487	254	1
## 29	HRC_I	0	935	1	1240	633	1	-856	302	1
## 30	CZCR_N	18	967	21	951	804	37	-428	163	16
## 31	CZCR_C	8	525	4	-419	348	3	299	177	4
## 32	CZCR_P	2	118	9	-752	102	2	295	16	1
## 33	CZCR_O	0	935	1	1240	633	1	-856	302	1
## 34	DKD_N	3	993	3	934	898	6	-304	95	1
## 35	DKD_P	15	754	11	374	200	5	623	554	29
## 36	DKD_J	0	57	4	-994	57	0	105	1	0
## 37	DKD_O	0	350	2	-1358	200	1	-1174	150	1
## 38	FIF_N	8	759	7	809	744	12	-117	16	1
## 39	FIF_P	15	754	13	303	116	3	711	637	38
## 40	FIFn_O	1	50	2	49	1	0	291	49	1
## 41	FIF_OC	0	350	2	-1358	200	1	-1174	150	1
## 42	FRF_N	12	987	19	1100	794	34	-543	193	17
## 43	FRF_C	17	143	3	-49	12	0	159	130	2
## 44	FRF_P	1	487	2	319	38	0	-1095	449	4
## 45	FRFr_O	0	144	1	404	138	0	84	6	0
## 46	FRF_OC	0	935	1	1240	633	1	-856	302	1
## 47	FRF_J	0	288	1	-432	43	0	1023	244	1
## 48	FRF_I	1	395	2	-560	161	1	-676	234	2
## 49	FRF_OA	0	935	1	1240	633	1	-856	302	1
## 50	GEG_N	1	655	1	822	537	1	-386	118	1
## 51	GEG_P	0	288	1	-432	43	0	1023	244	1
## 52	GEGr_O	27	696	17	-639	696	26	2	0	0
## 53	GEG_OC	2	765	2	-336	110	1	818	654	7
## 54	GEG_I	3	213	2	303	158	1	-178	54	0
## 55	DEG_N	18	742	17	805	709	26	-175	33	3
## 56	DEG_C	7	192	8	-338	112	2	284	79	3
## 57	DEG_P	11	216	10	207	53	1	363	164	7
## 58	DEGr_O	1	467	1	683	419	1	-229	47	0
## 59	DEG_OC	1	495	1	-1033	484	2	-155	11	0
## 60	DEG_J	0	180	1	453	34	0	938	146	1
## 61	DEG_I	1	394	2	-1088	368	2	-288	26	0
## 62	DEG_H	0	180	1	453	34	0	938	146	1
## 63	HUH_N	2	967	3	1057	818	6	-451	149	2
## 64	HUH_C	13	745	4	434	594	6	219	151	3
## 65	HUH_P	7	582	1	293	398	1	199	184	1
## 66	HUH_O	0	350	2	-1358	200	1	-1174	150	1
## 67	ISI_N	4	904	4	923	882	8	-146	22	0
## 68	ISI_C	1	105	3	-29	0	0	660	105	1
## 69	ISI_P	20	817	10	272	158	3	556	659	30
## 70	ISIC_O	0	515	1	-117	5	0	1211	510	3
## 71	ISI_OC	1	349	1	336	102	0	522	247	1
## 72	ISI_H	0	288	1	-432	43	0	1023	244	1
## 73	ISI_OR	1	417	1	420	236	0	368	181	0
## 74	INI_N	0	262	4	-1523	127	1	-1574	135	3

## 75	INI_OC	2	290	17	-1284	193	7	-912	97	8
## 76	INI_I	5	767	3	-538	484	3	411	283	4
## 77	INI_H	26	881	9	-454	640	12	278	240	10
## 78	INI_OA	1	212	2	248	41	0	507	171	2
## 79	ILI_N	0	935	1	1240	633	1	-856	302	1
## 80	ILI_P	0	217	2	198	4	0	1399	213	2
## 81	ILIs_O	0	217	4	198	4	0	1399	213	4
## 82	ILI_OC	1	250	3	-945	247	2	-101	3	0
## 83	ILI_J	22	399	4	-133	95	1	-237	304	6
## 84	ILI_I	3	798	2	255	104	0	-661	694	6
## 85	ILI_OR	0	935	1	1240	633	1	-856	302	1
## 86	JPJ_N	19	713	16	178	39	1	742	674	52
## 87	JPJ_OC	0	147	3	-1310	139	1	-315	8	0
## 88	JPJ_B	8	585	10	-198	32	1	820	552	27
## 89	JPJ_OA	1	488	3	-421	82	1	933	406	5
## 90	KRKS_N	10	902	13	979	730	22	-476	172	11
## 91	KRKS_C	2	678	2	-255	99	0	-617	579	4
## 92	KRKS_P	5	698	18	-1040	299	12	-1200	399	33
## 93	KRKS_B	6	159	3	-247	146	1	72	12	0
## 94	LVL_N	6	956	6	888	935	12	-134	21	1
## 95	LVL_C	3	443	3	-359	152	1	496	291	4
## 96	LVL_P	4	351	2	260	147	1	306	204	2
## 97	LVL_O	5	870	3	-136	27	0	763	843	13
## 98	LTL_N	3	924	2	745	829	4	-252	95	1
## 99	LTL_C	15	575	10	-309	144	3	536	432	21
## 100	LTLt_O	0	217	2	198	4	0	1399	213	2
## 101	LTL_OC	1	251	1	-152	24	0	473	227	1
## 102	LTL_I	0	262	4	-1523	127	1	-1574	135	3
## 103	NZNZ_N	11	966	19	1100	738	31	-611	228	20
## 104	NZNZ_C	4	236	1	-261	218	1	76	18	0
## 105	NZNZ_OC	10	473	2	-336	471	3	-17	1	0
## 106	NZNZ_I	0	271	3	-1176	225	1	-535	46	1
## 107	NZNZ_H	1	417	1	420	236	0	368	181	0
## 108	NZNZ_OR	0	463	1	10	0	0	981	463	2
## 109	NON_N	5	782	5	848	735	9	-214	47	1
## 110	NON_C	0	271	3	-1176	225	1	-535	46	1
## 111	NON_P	18	736	18	181	35	1	809	701	58
## 112	NON_O	0	319	2	-141	4	0	-1215	315	3
## 113	NON_I	0	288	1	-432	43	0	1023	244	1
## 114	NON_B	0	57	4	-994	57	0	105	1	0
## 115	PHP_N	0	217	2	198	4	0	1399	213	2
## 116	PHP_C	21	886	31	-1069	787	54	-380	100	15
## 117	PHP_P	2	375	8	-1077	298	5	-549	77	3
## 118	PHP_O	1	237	9	-1250	153	3	-925	84	4
## 119	PHP_I	1	552	5	-1111	317	4	-956	234	6
## 120	RUR_N	5	980	8	1051	675	12	-707	306	12
## 121	RURs_O	26	719	9	1	0	0	500	719	32
## 122	RUR_I	1	195	1	250	86	0	-283	110	1

## 123	RUR_B	0	288	1	-432	43	0	1023	244	1
## 124	RUR_OR	0	445	1	847	444	1	41	1	0
## 125	SKS_N	5	986	6	1013	882	12	-348	104	3
## 126	SKS_C	16	685	10	-627	685	15	-10	0	0
## 127	SKS_P	1	322	2	-385	127	0	475	194	1
## 128	SKS_O	0	288	1	-432	43	0	1023	244	1
## 129	SIS_N	7	965	8	898	759	13	-468	206	7
## 130	SIS_C	13	605	9	-354	196	4	511	409	17
## 131	SIS_P	0	935	1	1240	633	1	-856	302	1
## 132	SIS_O	0	144	1	404	138	0	84	6	0
## 133	ZASA_N	9	215	1	160	204	1	37	11	0
## 134	ZASA_C	3	423	10	-1069	313	7	-633	110	5
## 135	ZASA_P	24	910	33	-1022	783	58	-411	127	20
## 136	ZASA_OC	14	968	15	-895	808	26	-399	161	11
## 137	ZASA_I	3	698	8	-1162	511	9	-704	187	7
## 138	ZASA_H	4	647	5	-925	646	8	42	1	0
## 139	ZASA_OR	7	890	12	-1138	719	20	-554	170	10
## 140	ESS_N	10	964	13	1013	793	23	-471	171	10
## 141	ESS_C	29	566	5	260	418	5	-155	148	3
## 142	ESS_P	1	127	2	-319	42	0	-451	85	1
## 143	ESSp_O	0	935	1	1240	633	1	-856	302	1
## 144	ESS_OC	0	935	1	1240	633	1	-856	302	1
## 145	ESS_I	0	350	2	-1358	200	1	-1174	150	1
## 146	ESS_H	0	350	2	-1358	200	1	-1174	150	1
## 147	SRS_N	3	946	5	1021	772	8	-485	174	4
## 148	SRS_C	7	376	4	-435	305	3	-211	72	1
## 149	SRS_P	5	375	4	-461	262	2	-302	113	2
## 150	SRS_OC	2	653	2	-682	572	2	255	80	1
## 151	SRS_I	2	390	4	-871	387	3	77	3	0
## 152	SRS_B	0	64	2	-270	14	0	521	51	1
## 153	SRS_H	7	317	3	-218	113	1	293	204	3
## 154	SRS_OR	2	36	2	-190	35	0	-16	0	0
## 155	SES_N	6	912	5	850	895	11	-116	17	0
## 156	SES_P	15	728	9	338	206	4	538	522	22
## 157	SES_I	0	66	1	-453	62	0	-118	4	0
## 158	CHS_N	8	963	10	1031	840	18	-393	122	6
## 159	CHS_C	10	269	5	-56	6	0	374	263	7
## 160	CHS_P	5	334	1	123	119	0	-166	215	1
## 161	CHS_OC	0	217	2	198	4	0	1399	213	2
## 162	CHS_I	1	363	1	93	11	0	522	352	1
## 163	CHS_OR	0	935	1	1240	633	1	-856	302	1
## 164	THT_C	0	288	1	-432	43	0	1023	244	1
## 165	THT_P	0	350	2	-1358	200	1	-1174	150	1
## 166	THT_I	1	254	5	-1039	204	2	-516	50	1
## 167	THT_B	29	736	31	-870	736	50	-3	0	0
## 168	TRT_	30	828	24	-607	487	25	-508	341	38
## 169	GBGBUK_N	9	961	19	1179	700	30	-720	261	23
## 170	GBGBUK_C	2	176	5	-455	91	1	-437	84	2

```

## 171 | GBGBUK_P | 8 362 2 | 132 63 0 | -287 298 3 |
## 172 | GBGBUK_OC | 4 471 4 | 43 2 0 | -624 469 8 |
## 173 | GBGBUK_J | 0 935 1 | 1240 633 1 | -856 302 1 |
## 174 | GBGBUK_I | 0 935 1 | 1240 633 1 | -856 302 1 |
## 175 | GBGBUK_H | 0 180 1 | 453 34 0 | 938 146 1 |
## 176 | GBGBUK_OA | 0 57 4 | -994 57 0 | 105 1 0 |
## 177 | GBGBUK_OR | 0 935 1 | 1240 633 1 | -856 302 1 |
## 178 | USUS_N | 7 986 8 | 980 852 16 | -388 133 5 |
## 179 | USUS_C | 8 253 3 | -304 251 2 | 25 2 0 |
## 180 | USUS_P | 15 705 12 | -636 540 14 | -351 165 9 |
## 181 | USUS_OC | 1 263 1 | -324 129 0 | -329 133 1 |
## 182 | USUS_J | 1 26 1 | 233 25 0 | 62 2 0 |
## 183 | USUS_B | 0 935 1 | 1240 633 1 | -856 302 1 |
## 184 | USUS_H | 0 288 1 | -432 43 0 | 1023 244 1 |
## 185 | USUS_OR | 1 4 1 | 43 1 0 | 76 3 0 |
## 186 | VEV_N | 1 935 2 | 1240 633 2 | -856 302 2 |
## 187 | VEV_C | 13 439 14 | -669 434 14 | 73 5 0 |
## 188 | VEV_P | 0 621 3 | -1441 325 2 | -1374 296 4 |
## 189 | VEVn_0 | 0 262 4 | -1523 127 1 | -1574 135 3 |
## 190 | VEV_OC | 3 825 7 | -1224 684 10 | -555 141 5 |
## 191 | VEV_OR | 0 350 4 | -1358 200 2 | -1174 150 3 |

```

```
##
```

```
## Columns:
```

```

##      name  mass  qlt  inr      k=1 cor ctr      k=2 cor ctr
## 1 | OCHH | 98 536 79 | 130 22 4 | 632 515 192 |
## 2 | LDEL | 142 458 87 | 298 151 29 | 424 307 125 |
## 3 | Nevr | 292 986 251 | 816 805 449 | -387 181 214 |
## 4 | Svr1 | 52 589 138 | -1002 392 120 | -711 197 128 |
## 5 | OGBO | 98 700 157 | -893 517 181 | -531 183 135 |
## 6 | 23DE | 75 546 109 | -862 532 129 | -142 14 7 |
## 7 | Oncm | 54 278 87 | -654 276 54 | 47 1 1 |
## 8 | SGBA | 189 633 92 | -284 173 35 | 462 459 198 |

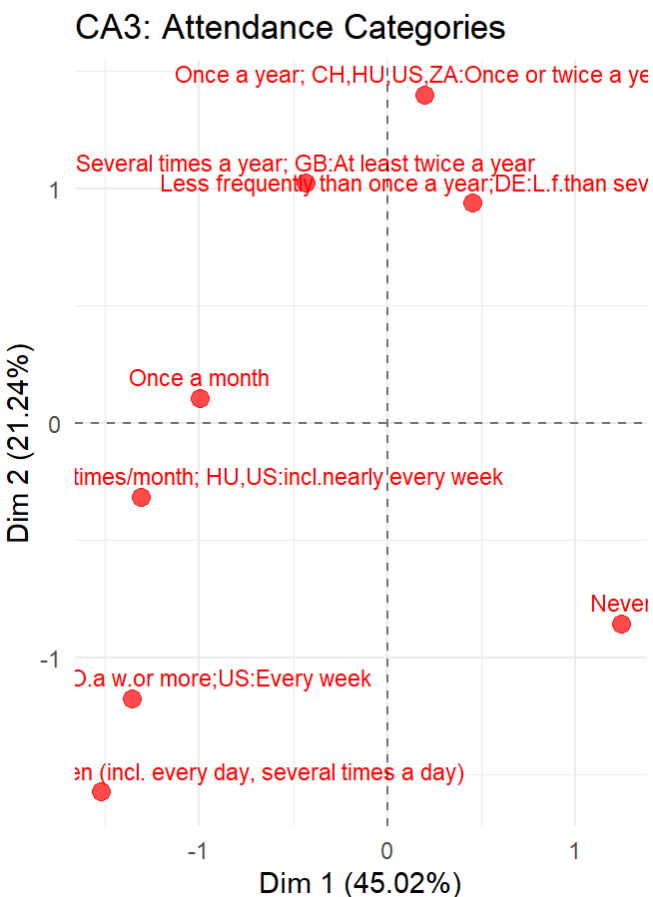
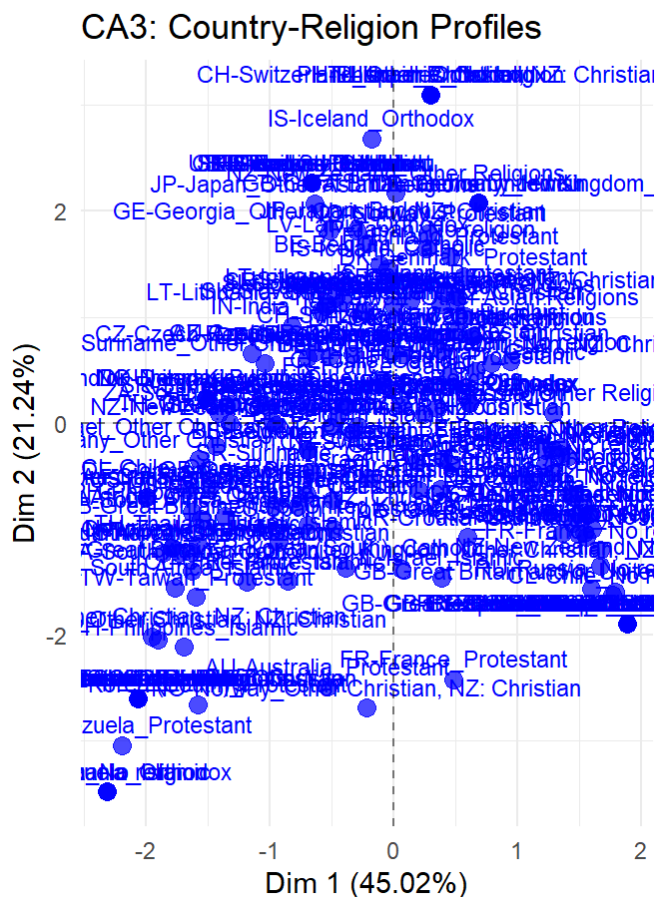
```

### CA3 Biplot: Social Values

Country × Religious Group × Attendance Patterns



### CA3: Detailed View - Social Values Analysis



## NSCA3 Analysis: Political Values (Country × Socioeconomic Status → Voting Behavior)

This section details a Non-symmetrical Three-way Correspondence Analysis (NSCA3). This analysis investigates how Country and Socioeconomic Status (TOPBOT) act as predictor variables for Voting Behavior (VOTE\_LE – specifically, voting “Yes” or “No/Not Eligible” in the last election). This approach helps uncover patterns in political values related to electoral participation.

### What the R Code Does

The R script for the NSCA3 performs these key operations:

1. **Data Selection & Cleaning:** It selects the variables `country`, `TOPBOT` (socioeconomic status), and `VOTE_LE` (voting behavior). Rows with missing data for these variables are removed.
2. **Predictor-Response Table Construction:**

- It first creates combined **predictor profiles** by uniting country and TOPBOT (e.g., “AU-Australia\_Lowest, Bottom, 01”).
  - Then, it constructs a two-way contingency table where:
    - **Rows** are these Country\_SocioEcon predictor profiles.
    - **Columns** are the categories of the VOTE\_LE **response variable** (“Yes”, “No, NZ: incl. was not eligible”).
    - Cell values are the counts of individuals.
3. **Correspondence Analysis for NSCA3:** The `ca()` function is applied to this predictor-by-response matrix. In NSCA3, the focus is on how the row profiles (predictors) are associated with the column categories (response).
4. **Results Extraction & Visualization:**
- The script extracts eigenvalues and coordinates.
  - It generates two key plots using `ggplot2` :
    - **An Asymmetric Biplot:** This plot shows the Country\_SocioEcon predictor profiles (green triangles) and the Voting Behavior response categories (orange circles) in the same dimensional space.
    - **A Contribution Biplot:** Similar to the asymmetric biplot, but the size of each point reflects its contribution to the total inertia (variance) of the dimension(s).

## Insights from the Analysis and Outputs/Plots

The primary aim is to understand how combined country and socioeconomic contexts predict voting behavior.

- **Key Console Output Details (from “NSCA3 Interpretation Summary”):**
  - **Available dimensions: 1.** This is a crucial finding. The entire predictive relationship captured by the model is summarized along a **single dimension**. This dimension explains 100% of the inertia that the model can account for.
  - **Predictor Profiles ( Country\_SocioEcon ):** The output table lists the coordinate for each predictor profile on this single dimension (Dim1). Dim2 is 0 for all.
  - **Response Categories ( Voting Behavior ):**
    - “Yes” (voted): Dim1 coordinate  $\approx -0.496$
    - “No, NZ: incl. was not eligible”: Dim1 coordinate  $\approx +2.017$
    - This clearly defines Dimension 1: **Negative scores indicate a stronger association with voting “Yes,” while positive scores indicate a stronger association with voting “No”**

**or being ineligible.**

- **Interpreting the Plots:**

- Both plots visually confirm the 1D nature of the solution, with all variation occurring along the horizontal axis (Dimension 1). The vertical axis (Dimension 2) shows 0% variance.
- **Asymmetric Biplot:**
  - The orange “Response” circles are positioned according to their Dim1 scores: “Yes” to the left, “No, NZ: incl. was not eligible” to the right.
  - The green “Predictor” triangles are spread along this same axis. Those positioned further to the left are more predictive of a “Yes” vote, while those further to the right are more predictive of a “No/Not Eligible” response.
- **Contribution Biplot:**
  - The two orange “Response” points are large, as they define the poles of this predictive dimension.
  - The size of the green “Predictor” points indicates their influence on this dimension. Larger green points represent Country\_SocioEcon profiles whose voting behavior is more distinct or contributes more to the overall observed pattern of association. Many points are small and clustered, suggesting their predictive strength on voting is less pronounced or more average.

- **Unusual or Statistically Distinct Findings:**

1. **Model Simplicity (One Dimension):** The reduction of complex Country × Socioeconomic Status interactions predicting Voting Behavior to a single dimension is a significant outcome. It suggests a primary underlying factor or continuum differentiating these groups regarding their voting patterns.

2. **Strong Association with Not Voting:**

- Several Country\_SocioEcon profiles exhibit very high positive Dim1 scores, strongly associating them with not voting or ineligibility. Examples include:
  - CL-Chile\_Lowest, Bottom, 01 ( $\approx 5.14$ ) and CL-Chile\_02 ( $\approx 5.14$ )
  - DK-Denmark\_Highest, Top, 10 ( $\approx 5.14$ )
  - FI-Finland\_Lowest, Bottom, 01 ( $\approx 5.14$ )
  - NO-Norway\_Lowest, Bottom, 01 ( $\approx 5.14$ ) and NO-Norway\_02 ( $\approx 5.14$ )
  - US-United States\_02 ( $\approx 5.14$ )
  - CH-Switzerland\_Lowest, Bottom, 01 ( $\approx 5.14$ )

3. **Strong Association with Voting “Yes”:**

- Conversely, many profiles show notable negative scores, indicating an association with voting “Yes”. Examples include:
  - Most AU-Australia profiles (all except “Highest, Top, 10”) ( $\approx -1.26$ )
  - BE-Belgium (Lowest, 02, 06-10 SES groups) ( $\approx -1.26$ )
  - Many DE-Germany profiles ( $\approx -1.26$ )

#### 4. Heterogeneity and Context-Specific Effects:

- The impact of socioeconomic status (SES) on voting is not uniform across countries, and vice-versa. This reveals context-specific political values.
- For instance, in **Australia**, most SES groups lean towards “Yes,” but the “Highest, Top, 10” group (Dim1  $\approx 0.87$ ) leans towards “No/Not Eligible.”
- In the **United States**, US-United States\_02 (Dim1  $\approx 5.14$ ) is strongly associated with “No/Not Eligible,” whereas US-United States\_09 (Dim1  $\approx -1.26$ ) is associated with “Yes.” This highlights significant variation within a single country based on SES.
- Similarly, the “Lowest, Bottom, 01” SES group shows a strong tendency towards “No/Not Eligible” in countries like Chile, Finland, and Norway, but towards “Yes” in Australia and Belgium.

5. **Visual Density of Predictors:** The biplots show a high density of predictor points, especially around the center. This makes individual label identification difficult from the plot alone, underscoring the importance of the provided coordinate tables for detailed interpretation of specific Country\_SocioEcon profiles.

In summary, the NSCA3 reveals a dominant single dimension differentiating Country\_SocioEcon profiles based on their propensity to vote. While some general trends emerge (e.g., many Australian profiles leaning towards voting), the analysis particularly highlights the highly variable and context-dependent nature of how socioeconomic status interacts with national context to predict political participation. The “unusual” findings lie in these strong contrasts and the simple, one-dimensional structure of this complex relationship.

```
cat("\n=== NSCA3: Political Values (Country × Socioeconomic Status → Voting) ===\n")
```

```
##
## === NSCA3: Political Values (Country × Socioeconomic Status → Voting) ===
```

```

dat_nsca <- dat %>%
  select(all_of(vars_nsca)) %>%
  na.omit() %>%
  filter(complete.cases(.))

if (nrow(dat_nsca) > 50) {
  nsca_table <- dat_nsca %>%
    count(country, TOPBOT, VOTE_LE) %>%
    unite(Country_SocioEcon, country, TOPBOT, sep = "_") %>%
    pivot_wider(names_from = VOTE_LE, values_from = n, values_fill = 0)

  nsca_matrix <- as.matrix(nsca_table[,-1])
  rownames(nsca_matrix) <- nsca_table$Country_SocioEcon

  nsca_matrix <- nsca_matrix[rowSums(nsca_matrix) > 0, colSums(nsca_matrix) > 0, drop
= FALSE]

  if (nrow(nsca_matrix) > 2 && ncol(nsca_matrix) > 1) {
    res_nsca <- ca(nsca_matrix)

    if (!is.null(res_nsca$rowcoord) && !is.null(res_nsca$colcoord)) {
      max_dims_nsca <- min(nrow(nsca_matrix) - 1, ncol(nsca_matrix) - 1, 2)
      available_dims_nsca <- ncol(res_nsca$rowcoord)
      n_dims_nsca <- min(max_dims_nsca, available_dims_nsca, 2)

      cat("NSCA3 Results:\n")
      cat("Matrix dimensions:", nrow(nsca_matrix), "x", ncol(nsca_matrix), "\n")
      cat("Available CA dimensions:", available_dims_nsca, "\n")
      cat("Using dimensions:", n_dims_nsca, "\n")

      tryCatch({
        print(summary(res_nsca))
      }, error = function(e) {
        cat("Summary error (using basic info instead):\n")
        cat("Eigenvalues:", res_nsca$sv^2, "\n")
        cat("Inertia explained:", round(res_nsca$sv^2/sum(res_nsca$sv^2)*100, 2), "%
\n")
      })

      if (n_dims_nsca >= 1) {
        if (n_dims_nsca == 1) {
          row_coords_nsca <- data.frame(
            Dim1 = res_nsca$rowcoord[,1],
            Dim2 = 0
          )
          col_coords_nsca <- data.frame(
            Dim1 = res_nsca$colcoord[,1],

```

```

    Dim2 = 0
  )
} else {
  row_coords_nsca <- as.data.frame(res_nsca$rowcoord[,1:n_dims_nsca])
  colnames(row_coords_nsca) <- c("Dim1", "Dim2")
  col_coords_nsca <- as.data.frame(res_nsca$colcoord[,1:n_dims_nsca])
  colnames(col_coords_nsca) <- c("Dim1", "Dim2")
}

row_coords_nsca$Label <- rownames(row_coords_nsca)
row_coords_nsca$Type <- "Predictor"
col_coords_nsca$Label <- rownames(col_coords_nsca)
col_coords_nsca$Type <- "Response"

nsca_plot_data <- rbind(row_coords_nsca, col_coords_nsca)
inertia_pct_nsca <- res_nsca$sv^2 / sum(res_nsca$sv^2) * 100

plot_nsca_biplot <- ggplot(nsca_plot_data, aes(x = Dim1, y = Dim2,
                                              color = Type, shape = Type)) +
  geom_point(size = 3, alpha = 0.8) +
  geom_text(aes(label = Label), vjust = -0.7, size = 3, alpha = 0.9) +
  labs(title = "NSCA3 Asymmetric Biplot: Political Values",
       subtitle = "Country × Socioeconomic Status → Voting Behavior",
       x = paste0("Dimension 1 (", round(inertia_pct_nsca[1], 2), "%)"),
       y = if(n_dims_nsca > 1) paste0("Dimension 2 (", round(inertia_pct_nsca
[2], 2), "%)") else "Dimension 2 (0%)") +
  theme_minimal() +
  geom_hline(yintercept = 0, linetype = "dashed", alpha = 0.5) +
  geom_vline(xintercept = 0, linetype = "dashed", alpha = 0.5) +
  scale_shape_manual(values = c("Predictor" = 17, "Response" = 16)) +
  scale_color_manual(values = c("Predictor" = "darkgreen", "Response" = "darkorange")) +
  theme(legend.position = "bottom")

if (n_dims_nsca > 1) {
  row_contrib <- res_nsca$rowmass * (res_nsca$rowcoord[,1]^2 + res_nsca$rowcoord[,2]^2)
  col_contrib <- res_nsca$colmass * (res_nsca$colcoord[,1]^2 + res_nsca$colcoord[,2]^2)
} else {
  row_contrib <- res_nsca$rowmass * res_nsca$rowcoord[,1]^2
  col_contrib <- res_nsca$colmass * res_nsca$colcoord[,1]^2
}

row_coords_nsca$Contribution <- row_contrib
col_coords_nsca$Contribution <- col_contrib
nsca_contrib_data <- rbind(row_coords_nsca, col_coords_nsca)

```

```

plot_nsca_contrib <- ggplot(nsca_contrib_data, aes(x = Dim1, y = Dim2,
                                                color = Type, size = Contri
bution)) +
  geom_point(alpha = 0.7) +
  geom_text(aes(label = Label), vjust = -0.7, size = 3, alpha = 0.9) +
  labs(title = "NSCA3 Contribution Biplot: Political Values",
       subtitle = "Point size reflects contribution to total inertia",
       x = paste0("Dimension 1 (", round(inertia_pct_nsca[1], 2), "%)"),
       y = if(n_dims_nsca > 1) paste0("Dimension 2 (", round(inertia_pct_nsca
[2], 2), "%)") else "Dimension 2 (0%)") +
  theme_minimal() +
  geom_hline(yintercept = 0, linetype = "dashed", alpha = 0.5) +
  geom_vline(xintercept = 0, linetype = "dashed", alpha = 0.5) +
  scale_color_manual(values = c("Predictor" = "darkgreen", "Response" = "darkorange")) +
  theme(legend.position = "bottom")

print(plot_nsca_biplot)
print(plot_nsca_contrib)

cat("\n--- NSCA3 Interpretation Summary ---\n")
cat("Available dimensions:", n_dims_nsca, "\n")
cat("Predictor Profiles (Country_SocioeconomicStatus):\n")
print(row_coords_nsca[,1:3])
cat("\nResponse Categories (Voting Behavior):\n")
print(col_coords_nsca[,1:3])
} else {
  cat("Insufficient dimensions available for NSCA3 visualization\n")
}
} else {
  cat("NSCA3 analysis failed - check data structure\n")
}
} else {
  cat("Insufficient data structure for NSCA3 analysis\n")
}
} else {
  cat("Insufficient observations for NSCA3 analysis\n")
}

```

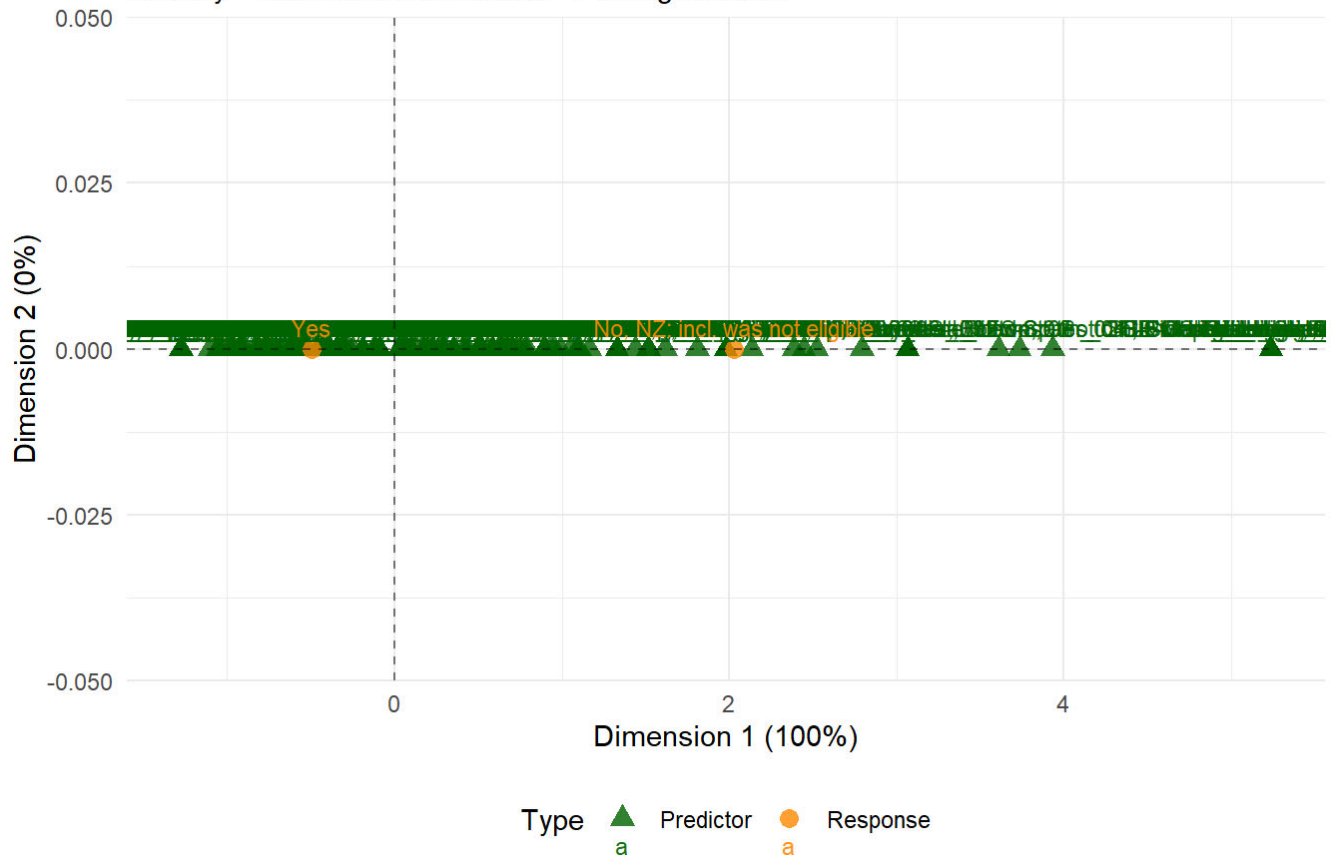
```

## NSCA3 Results:
## Matrix dimensions: 310 x 2
## Available CA dimensions: 1
## Using dimensions: 1
## Summary error (using basic info instead):
## Eigenvalues: 0.149823
## Inertia explained: 100 %

```

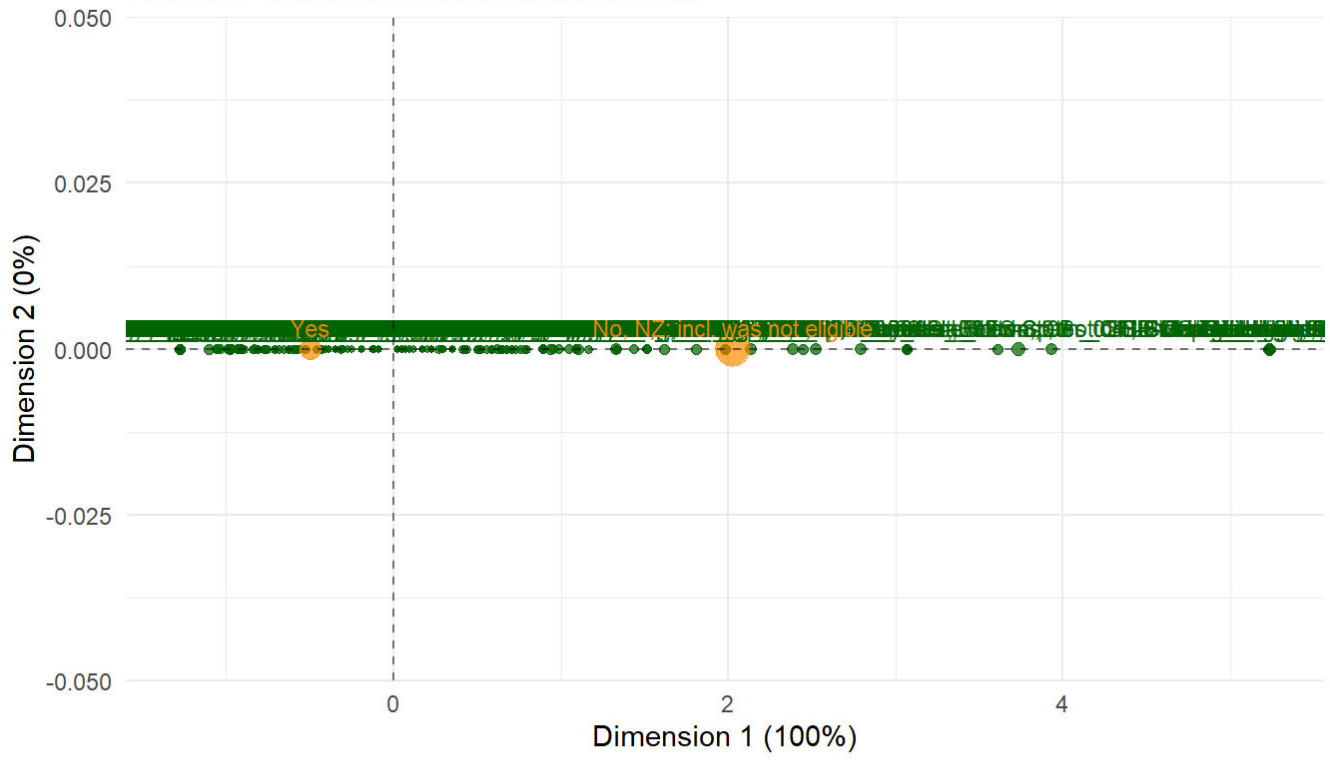
### NSCA3 Asymmetric Biplot: Political Values

Country × Socioeconomic Status → Voting Behavior



### NSCA3 Contribution Biplot: Political Values

Point size reflects contribution to total inertia



Type    ● Predictor    ● Response    Contribution    ● 0.2    ● 0.4    ● 0.6    ● 0.8  
         a                    a

```

##
## --- NSCA3 Interpretation Summary ---
## Available dimensions: 1
## Predictor Profiles (Country_SocioeconomicStatus):
##
##                               Dim1 Dim2
## AU-Australia_Lowest, Bottom, 01    -1.27512898    0
## AU-Australia_02                    -1.27512898    0
## AU-Australia_03                    -1.27512898    0
## AU-Australia_04                    -1.27512898    0
## AU-Australia_05                    -1.05066231    0
## AU-Australia_06                    -0.91348824    0
## AU-Australia_07                    -1.27512898    0
## AU-Australia_08                    -1.27512898    0
## AU-Australia_09                    -1.27512898    0
## AU-Australia_Highest, Top, 10      -1.27512898    0
## BE-Belgium_Lowest, Bottom, 01      0.02677771    0
## BE-Belgium_02                      0.89471550    0
## BE-Belgium_03                     -0.34519563    0
## BE-Belgium_04                     -0.62417564    0
## BE-Belgium_05                     -0.53118230    0
## BE-Belgium_06                     -0.90315564    0
## BE-Belgium_07                     -1.27512898    0
## BE-Belgium_08                     -0.96515120    0
## BE-Belgium_09                     -1.27512898    0
## CL-Chile_Lowest, Bottom, 01        5.23440448    0
## CL-Chile_02                       1.97963775    0
## CL-Chile_03                       0.41252784    0
## CL-Chile_04                       0.98905657    0
## CL-Chile_05                       0.93811239    0
## CL-Chile_06                       1.04970440    0
## CL-Chile_07                       1.09197409    0
## CL-Chile_08                       -1.27512898    0
## CL-Chile_09                       0.89471550    0
## TW-Taiwan_Lowest, Bottom, 01       0.09529911    0
## TW-Taiwan_02                      -0.09157745    0
## TW-Taiwan_03                      -0.38746533    0
## TW-Taiwan_04                      0.20431044    0
## TW-Taiwan_05                      0.05088709    0
## TW-Taiwan_06                      -0.09157745    0
## TW-Taiwan_07                      0.58473772    0
## TW-Taiwan_08                      -1.27512898    0
## TW-Taiwan_09                      -1.27512898    0
## TW-Taiwan_Highest, Top, 10        -1.27512898    0
## HR-Croatia_Lowest, Bottom, 01      3.06455999    0
## HR-Croatia_02                     1.32868440    0
## HR-Croatia_03                     0.89471550    0
## HR-Croatia_04                     -0.55184749    0

```

## HR-Croatia_05	0.65362167	0
## HR-Croatia_06	0.50019832	0
## HR-Croatia_07	-0.09157745	0
## HR-Croatia_08	1.97963775	0
## HR-Croatia_09	-1.27512898	0
## HR-Croatia_Highest, Top, 10	5.23440448	0
## CZ-Czech Republic_Lowest, Bottom, 01	1.97963775	0
## CZ-Czech Republic_02	2.44460442	0
## CZ-Czech Republic_03	0.89471550	0
## CZ-Czech Republic_04	0.58473772	0
## CZ-Czech Republic_05	0.95671106	0
## CZ-Czech Republic_06	1.09197409	0
## CZ-Czech Republic_07	1.80833424	0
## CZ-Czech Republic_08	1.43717663	0
## CZ-Czech Republic_09	1.97963775	0
## DK-Denmark_Lowest, Bottom, 01	-1.27512898	0
## DK-Denmark_03	-1.27512898	0
## DK-Denmark_04	-1.27512898	0
## DK-Denmark_05	-1.27512898	0
## DK-Denmark_06	-1.27512898	0
## DK-Denmark_07	-0.99210579	0
## DK-Denmark_08	-0.68335321	0
## DK-Denmark_09	-1.27512898	0
## FI-Finland_Lowest, Bottom, 01	5.23440448	0
## FI-Finland_02	-1.27512898	0
## FI-Finland_03	-1.27512898	0
## FI-Finland_04	0.72780439	0
## FI-Finland_05	0.67773106	0
## FI-Finland_06	-0.93252196	0
## FI-Finland_07	-0.70908260	0
## FI-Finland_08	-0.58991494	0
## FI-Finland_09	1.97963775	0
## FI-Finland_Highest, Top, 10	-1.27512898	0
## FR-France_Lowest, Bottom, 01	-1.27512898	0
## FR-France_02	-1.27512898	0
## FR-France_03	-1.27512898	0
## FR-France_04	-1.27512898	0
## FR-France_05	-0.91348824	0
## FR-France_06	-1.10382547	0
## FR-France_07	-1.27512898	0
## FR-France_08	-0.19020674	0
## FR-France_09	-1.27512898	0
## GE-Georgia_Lowest, Bottom, 01	0.89471550	0
## GE-Georgia_02	-0.91348824	0
## GE-Georgia_03	0.17143401	0
## GE-Georgia_04	1.09197409	0
## GE-Georgia_05	-0.11787859	0
## GE-Georgia_06	1.97963775	0

## GE-Georgia_07	0.75910022	0
## GE-Georgia_08	1.51467107	0
## GE-Georgia_09	1.97963775	0
## GE-Georgia_Highest, Top, 10	5.23440448	0
## DE-Germany_02	1.97963775	0
## DE-Germany_03	0.89471550	0
## DE-Germany_04	1.97963775	0
## DE-Germany_05	0.58473772	0
## DE-Germany_06	0.05334723	0
## DE-Germany_07	0.07167104	0
## DE-Germany_08	-0.92326231	0
## DE-Germany_09	-0.55184749	0
## DE-Germany_Highest, Top, 10	-1.27512898	0
## HU-Hungary_Lowest, Bottom, 01	0.89471550	0
## HU-Hungary_02	0.35225438	0
## HU-Hungary_03	0.63943968	0
## HU-Hungary_04	0.43790614	0
## HU-Hungary_05	0.07167104	0
## HU-Hungary_06	-0.81016231	0
## HU-Hungary_07	0.17143401	0
## HU-Hungary_08	1.97963775	0
## IS-Iceland_Lowest, Bottom, 01	1.97963775	0
## IS-Iceland_02	-1.27512898	0
## IS-Iceland_03	5.23440448	0
## IS-Iceland_04	-0.19020674	0
## IS-Iceland_05	-0.97924110	0
## IS-Iceland_06	-1.27512898	0
## IS-Iceland_07	-0.42605940	0
## IS-Iceland_08	-0.46143730	0
## IS-Iceland_09	-1.27512898	0
## IS-Iceland_Highest, Top, 10	-1.27512898	0
## IN-India_Lowest, Bottom, 01	-1.27512898	0
## IN-India_02	-0.77439564	0
## IN-India_03	0.35225438	0
## IN-India_04	-0.09157745	0
## IN-India_05	-0.11271229	0
## IN-India_06	-0.75436631	0
## IN-India_07	0.28715905	0
## IN-India_08	0.70603337	0
## IN-India_09	-0.19020674	0
## IN-India_Highest, Top, 10	-0.34519563	0
## IL-Israel_Lowest, Bottom, 01	0.89471550	0
## IL-Israel_02	-1.27512898	0
## IL-Israel_03	-1.27512898	0
## IL-Israel_04	0.17143401	0
## IL-Israel_05	-0.96515120	0
## IL-Israel_06	-0.81016231	0
## IL-Israel_07	-0.31075366	0

## IL-Israel_08	-0.70908260	0
## IL-Israel_09	-0.77439564	0
## IL-Israel_Highest, Top, 10	-0.19020674	0
## JP-Japan_Lowest, Bottom, 01	0.35225438	0
## JP-Japan_02	-1.27512898	0
## JP-Japan_03	0.78051316	0
## JP-Japan_04	1.61799700	0
## JP-Japan_05	1.10640765	0
## JP-Japan_06	-0.40719119	0
## JP-Japan_07	0.22707105	0
## JP-Japan_08	-0.55184749	0
## JP-Japan_09	-1.27512898	0
## JP-Japan_Highest, Top, 10	5.23440448	0
## KR-Korea (South)_Lowest, Bottom, 01	-0.19020674	0
## KR-Korea (South)_02	0.89471550	0
## KR-Korea (South)_03	0.67773106	0
## KR-Korea (South)_04	-0.34519563	0
## KR-Korea (South)_05	0.52060439	0
## KR-Korea (South)_06	0.70603337	0
## KR-Korea (South)_07	0.89471550	0
## KR-Korea (South)_08	-1.27512898	0
## KR-Korea (South)_Highest, Top, 10	-1.27512898	0
## LV-Latvia_Lowest, Bottom, 01	-1.27512898	0
## LV-Latvia_02	1.97963775	0
## LV-Latvia_03	-1.27512898	0
## LV-Latvia_04	0.02677771	0
## LV-Latvia_05	-0.65517342	0
## LV-Latvia_06	-0.84116009	0
## LV-Latvia_07	-0.19020674	0
## LV-Latvia_08	-1.27512898	0
## LV-Latvia_09	5.23440448	0
## LV-Latvia_Highest, Top, 10	-1.27512898	0
## LT-Lithuania_Lowest, Bottom, 01	3.06455999	0
## LT-Lithuania_02	5.23440448	0
## LT-Lithuania_03	-0.55184749	0
## LT-Lithuania_04	1.97963775	0
## LT-Lithuania_05	0.42301018	0
## LT-Lithuania_06	0.17143401	0
## LT-Lithuania_07	1.97963775	0
## LT-Lithuania_08	0.89471550	0
## LT-Lithuania_09	5.23440448	0
## LT-Lithuania_Highest, Top, 10	1.97963775	0
## NO-Norway_Lowest, Bottom, 01	-1.27512898	0
## NO-Norway_03	2.79332943	0
## NO-Norway_04	-0.27366230	0
## NO-Norway_05	-0.96515120	0
## NO-Norway_06	-0.60172897	0
## NO-Norway_07	-0.75436631	0

## NO-Norway_08	-1.27512898	0
## NO-Norway_09	-1.27512898	0
## PH-Philippines_Lowest, Bottom, 01	0.02677771	0
## PH-Philippines_02	-1.27512898	0
## PH-Philippines_03	-0.62417564	0
## PH-Philippines_04	-1.27512898	0
## PH-Philippines_05	0.09529911	0
## PH-Philippines_06	-0.34519563	0
## PH-Philippines_07	0.22707105	0
## PH-Philippines_08	-1.27512898	0
## PH-Philippines_09	-1.27512898	0
## PH-Philippines_Highest, Top, 10	-1.27512898	0
## RU-Russia_Lowest, Bottom, 01	-1.27512898	0
## RU-Russia_02	1.09197409	0
## RU-Russia_03	0.29613771	0
## RU-Russia_04	0.89471550	0
## RU-Russia_05	0.63943968	0
## RU-Russia_06	1.16594607	0
## RU-Russia_07	1.51467107	0
## RU-Russia_08	1.97963775	0
## RU-Russia_09	-1.27512898	0
## SK-Slovakia_Lowest, Bottom, 01	-1.27512898	0
## SK-Slovakia_02	0.35225438	0
## SK-Slovakia_03	2.13462664	0
## SK-Slovakia_04	-0.19020674	0
## SK-Slovakia_05	0.52060439	0
## SK-Slovakia_06	0.50019832	0
## SK-Slovakia_07	-0.34519563	0
## SK-Slovakia_08	0.35225438	0
## SK-Slovakia_09	-1.27512898	0
## SK-Slovakia_Highest, Top, 10	-1.27512898	0
## SI-Slovenia_Lowest, Bottom, 01	-1.27512898	0
## SI-Slovenia_02	1.97963775	0
## SI-Slovenia_03	3.06455999	0
## SI-Slovenia_04	0.35225438	0
## SI-Slovenia_05	0.89471550	0
## SI-Slovenia_06	0.35225438	0
## SI-Slovenia_07	-0.46143730	0
## SI-Slovenia_08	-0.19020674	0
## SI-Slovenia_09	-1.27512898	0
## ZA-South Africa_Lowest, Bottom, 01	-0.42605940	0
## ZA-South Africa_02	0.28715905	0
## ZA-South Africa_03	-0.57139564	0
## ZA-South Africa_04	-0.31784465	0
## ZA-South Africa_05	0.50019832	0
## ZA-South Africa_06	0.62348494	0
## ZA-South Africa_07	0.35225438	0
## ZA-South Africa_08	0.50019832	0

## ZA-South Africa_09	1.97963775	0
## ZA-South Africa_Highest, Top, 10	-1.27512898	0
## ES-Spain_Lowest, Bottom, 01	-1.27512898	0
## ES-Spain_02	3.93249779	0
## ES-Spain_03	-0.24730791	0
## ES-Spain_04	-1.05814454	0
## ES-Spain_05	0.26660263	0
## ES-Spain_06	-1.27512898	0
## ES-Spain_07	-0.40719119	0
## SR-Suriname_Lowest, Bottom, 01	3.60702111	0
## SR-Suriname_02	-0.62417564	0
## SR-Suriname_03	0.02677771	0
## SR-Suriname_04	-1.27512898	0
## SR-Suriname_05	-0.82619564	0
## SR-Suriname_06	-0.38746533	0
## SR-Suriname_07	-0.58991494	0
## SR-Suriname_08	-0.46143730	0
## SR-Suriname_09	-0.19020674	0
## SR-Suriname_Highest, Top, 10	0.02677771	0
## SE-Sweden_Lowest, Bottom, 01	5.23440448	0
## SE-Sweden_02	-1.27512898	0
## SE-Sweden_03	-1.27512898	0
## SE-Sweden_04	-1.27512898	0
## SE-Sweden_05	-0.52402897	0
## SE-Sweden_06	-1.03403515	0
## SE-Sweden_07	-1.27512898	0
## SE-Sweden_08	-1.27512898	0
## SE-Sweden_09	-1.27512898	0
## SE-Sweden_Highest, Top, 10	-1.27512898	0
## CH-Switzerland_02	1.97963775	0
## CH-Switzerland_03	1.32868440	0
## CH-Switzerland_04	1.97963775	0
## CH-Switzerland_05	0.79608621	0
## CH-Switzerland_06	2.52209887	0
## CH-Switzerland_07	0.02677771	0
## CH-Switzerland_08	0.22707105	0
## CH-Switzerland_09	-1.27512898	0
## CH-Switzerland_Highest, Top, 10	5.23440448	0
## TH-Thailand_Lowest, Bottom, 01	-1.27512898	0
## TH-Thailand_02	-1.27512898	0
## TH-Thailand_03	-1.27512898	0
## TH-Thailand_04	-0.55184749	0
## TH-Thailand_05	-0.97468898	0
## TH-Thailand_06	-0.96515120	0
## TH-Thailand_07	-0.89221525	0
## TH-Thailand_08	-1.27512898	0
## TH-Thailand_09	-1.27512898	0
## TH-Thailand_Highest, Top, 10	-1.27512898	0

## TR-Turkey_Lowest, Bottom, 01	0.02677771	0
## TR-Turkey_02	-0.62417564	0
## TR-Turkey_03	0.11977104	0
## TR-Turkey_04	0.02677771	0
## TR-Turkey_05	-0.46143730	0
## TR-Turkey_06	-0.34519563	0
## TR-Turkey_07	-0.58991494	0
## TR-Turkey_08	-1.27512898	0
## TR-Turkey_Highest, Top, 10	-1.27512898	0
## US-United States_Lowest, Bottom, 01	-1.27512898	0
## US-United States_02	5.23440448	0
## US-United States_03	1.97963775	0
## US-United States_04	3.73220445	0
## US-United States_05	2.38648359	0
## US-United States_06	1.32868440	0
## US-United States_07	-0.29869896	0
## US-United States_08	-0.77439564	0
## US-United States_09	0.58473772	0
## US-United States_Highest, Top, 10	-1.27512898	0
## VE-Venezuela_Lowest, Bottom, 01	-1.27512898	0
## VE-Venezuela_02	3.06455999	0
## VE-Venezuela_03	0.63943968	0
## VE-Venezuela_04	-0.12638778	0
## VE-Venezuela_05	0.55567730	0
## VE-Venezuela_06	0.58473772	0
## VE-Venezuela_07	1.97963775	0
## VE-Venezuela_08	-1.27512898	0
## VE-Venezuela_Highest, Top, 10	-1.27512898	0
##		Label
## AU-Australia_Lowest, Bottom, 01	AU-Australia_Lowest, Bottom, 01	
## AU-Australia_02		AU-Australia_02
## AU-Australia_03		AU-Australia_03
## AU-Australia_04		AU-Australia_04
## AU-Australia_05		AU-Australia_05
## AU-Australia_06		AU-Australia_06
## AU-Australia_07		AU-Australia_07
## AU-Australia_08		AU-Australia_08
## AU-Australia_09		AU-Australia_09
## AU-Australia_Highest, Top, 10	AU-Australia_Highest, Top, 10	
## BE-Belgium_Lowest, Bottom, 01	BE-Belgium_Lowest, Bottom, 01	
## BE-Belgium_02		BE-Belgium_02
## BE-Belgium_03		BE-Belgium_03
## BE-Belgium_04		BE-Belgium_04
## BE-Belgium_05		BE-Belgium_05
## BE-Belgium_06		BE-Belgium_06
## BE-Belgium_07		BE-Belgium_07
## BE-Belgium_08		BE-Belgium_08
## BE-Belgium_09		BE-Belgium_09

## CL-Chile_Lowest, Bottom, 01	CL-Chile_Lowest, Bottom, 01
## CL-Chile_02	CL-Chile_02
## CL-Chile_03	CL-Chile_03
## CL-Chile_04	CL-Chile_04
## CL-Chile_05	CL-Chile_05
## CL-Chile_06	CL-Chile_06
## CL-Chile_07	CL-Chile_07
## CL-Chile_08	CL-Chile_08
## CL-Chile_09	CL-Chile_09
## TW-Taiwan_Lowest, Bottom, 01	TW-Taiwan_Lowest, Bottom, 01
## TW-Taiwan_02	TW-Taiwan_02
## TW-Taiwan_03	TW-Taiwan_03
## TW-Taiwan_04	TW-Taiwan_04
## TW-Taiwan_05	TW-Taiwan_05
## TW-Taiwan_06	TW-Taiwan_06
## TW-Taiwan_07	TW-Taiwan_07
## TW-Taiwan_08	TW-Taiwan_08
## TW-Taiwan_09	TW-Taiwan_09
## TW-Taiwan_Highest, Top, 10	TW-Taiwan_Highest, Top, 10
## HR-Croatia_Lowest, Bottom, 01	HR-Croatia_Lowest, Bottom, 01
## HR-Croatia_02	HR-Croatia_02
## HR-Croatia_03	HR-Croatia_03
## HR-Croatia_04	HR-Croatia_04
## HR-Croatia_05	HR-Croatia_05
## HR-Croatia_06	HR-Croatia_06
## HR-Croatia_07	HR-Croatia_07
## HR-Croatia_08	HR-Croatia_08
## HR-Croatia_09	HR-Croatia_09
## HR-Croatia_Highest, Top, 10	HR-Croatia_Highest, Top, 10
## CZ-Czech Republic_Lowest, Bottom, 01	CZ-Czech Republic_Lowest, Bottom, 01
## CZ-Czech Republic_02	CZ-Czech Republic_02
## CZ-Czech Republic_03	CZ-Czech Republic_03
## CZ-Czech Republic_04	CZ-Czech Republic_04
## CZ-Czech Republic_05	CZ-Czech Republic_05
## CZ-Czech Republic_06	CZ-Czech Republic_06
## CZ-Czech Republic_07	CZ-Czech Republic_07
## CZ-Czech Republic_08	CZ-Czech Republic_08
## CZ-Czech Republic_09	CZ-Czech Republic_09
## DK-Denmark_Lowest, Bottom, 01	DK-Denmark_Lowest, Bottom, 01
## DK-Denmark_03	DK-Denmark_03
## DK-Denmark_04	DK-Denmark_04
## DK-Denmark_05	DK-Denmark_05
## DK-Denmark_06	DK-Denmark_06
## DK-Denmark_07	DK-Denmark_07
## DK-Denmark_08	DK-Denmark_08
## DK-Denmark_09	DK-Denmark_09
## FI-Finland_Lowest, Bottom, 01	FI-Finland_Lowest, Bottom, 01
## FI-Finland_02	FI-Finland_02

## FI-Finland_03	FI-Finland_03
## FI-Finland_04	FI-Finland_04
## FI-Finland_05	FI-Finland_05
## FI-Finland_06	FI-Finland_06
## FI-Finland_07	FI-Finland_07
## FI-Finland_08	FI-Finland_08
## FI-Finland_09	FI-Finland_09
## FI-Finland_Highest, Top, 10	FI-Finland_Highest, Top, 10
## FR-France_Lowest, Bottom, 01	FR-France_Lowest, Bottom, 01
## FR-France_02	FR-France_02
## FR-France_03	FR-France_03
## FR-France_04	FR-France_04
## FR-France_05	FR-France_05
## FR-France_06	FR-France_06
## FR-France_07	FR-France_07
## FR-France_08	FR-France_08
## FR-France_09	FR-France_09
## GE-Georgia_Lowest, Bottom, 01	GE-Georgia_Lowest, Bottom, 01
## GE-Georgia_02	GE-Georgia_02
## GE-Georgia_03	GE-Georgia_03
## GE-Georgia_04	GE-Georgia_04
## GE-Georgia_05	GE-Georgia_05
## GE-Georgia_06	GE-Georgia_06
## GE-Georgia_07	GE-Georgia_07
## GE-Georgia_08	GE-Georgia_08
## GE-Georgia_09	GE-Georgia_09
## GE-Georgia_Highest, Top, 10	GE-Georgia_Highest, Top, 10
## DE-Germany_02	DE-Germany_02
## DE-Germany_03	DE-Germany_03
## DE-Germany_04	DE-Germany_04
## DE-Germany_05	DE-Germany_05
## DE-Germany_06	DE-Germany_06
## DE-Germany_07	DE-Germany_07
## DE-Germany_08	DE-Germany_08
## DE-Germany_09	DE-Germany_09
## DE-Germany_Highest, Top, 10	DE-Germany_Highest, Top, 10
## HU-Hungary_Lowest, Bottom, 01	HU-Hungary_Lowest, Bottom, 01
## HU-Hungary_02	HU-Hungary_02
## HU-Hungary_03	HU-Hungary_03
## HU-Hungary_04	HU-Hungary_04
## HU-Hungary_05	HU-Hungary_05
## HU-Hungary_06	HU-Hungary_06
## HU-Hungary_07	HU-Hungary_07
## HU-Hungary_08	HU-Hungary_08
## IS-Iceland_Lowest, Bottom, 01	IS-Iceland_Lowest, Bottom, 01
## IS-Iceland_02	IS-Iceland_02
## IS-Iceland_03	IS-Iceland_03
## IS-Iceland_04	IS-Iceland_04

## IS-Iceland_05	IS-Iceland_05
## IS-Iceland_06	IS-Iceland_06
## IS-Iceland_07	IS-Iceland_07
## IS-Iceland_08	IS-Iceland_08
## IS-Iceland_09	IS-Iceland_09
## IS-Iceland_Highest, Top, 10	IS-Iceland_Highest, Top, 10
## IN-India_Lowest, Bottom, 01	IN-India_Lowest, Bottom, 01
## IN-India_02	IN-India_02
## IN-India_03	IN-India_03
## IN-India_04	IN-India_04
## IN-India_05	IN-India_05
## IN-India_06	IN-India_06
## IN-India_07	IN-India_07
## IN-India_08	IN-India_08
## IN-India_09	IN-India_09
## IN-India_Highest, Top, 10	IN-India_Highest, Top, 10
## IL-Israel_Lowest, Bottom, 01	IL-Israel_Lowest, Bottom, 01
## IL-Israel_02	IL-Israel_02
## IL-Israel_03	IL-Israel_03
## IL-Israel_04	IL-Israel_04
## IL-Israel_05	IL-Israel_05
## IL-Israel_06	IL-Israel_06
## IL-Israel_07	IL-Israel_07
## IL-Israel_08	IL-Israel_08
## IL-Israel_09	IL-Israel_09
## IL-Israel_Highest, Top, 10	IL-Israel_Highest, Top, 10
## JP-Japan_Lowest, Bottom, 01	JP-Japan_Lowest, Bottom, 01
## JP-Japan_02	JP-Japan_02
## JP-Japan_03	JP-Japan_03
## JP-Japan_04	JP-Japan_04
## JP-Japan_05	JP-Japan_05
## JP-Japan_06	JP-Japan_06
## JP-Japan_07	JP-Japan_07
## JP-Japan_08	JP-Japan_08
## JP-Japan_09	JP-Japan_09
## JP-Japan_Highest, Top, 10	JP-Japan_Highest, Top, 10
## KR-Korea (South)_Lowest, Bottom, 01	KR-Korea (South)_Lowest, Bottom, 01
## KR-Korea (South)_02	KR-Korea (South)_02
## KR-Korea (South)_03	KR-Korea (South)_03
## KR-Korea (South)_04	KR-Korea (South)_04
## KR-Korea (South)_05	KR-Korea (South)_05
## KR-Korea (South)_06	KR-Korea (South)_06
## KR-Korea (South)_07	KR-Korea (South)_07
## KR-Korea (South)_08	KR-Korea (South)_08
## KR-Korea (South)_Highest, Top, 10	KR-Korea (South)_Highest, Top, 10
## LV-Latvia_Lowest, Bottom, 01	LV-Latvia_Lowest, Bottom, 01
## LV-Latvia_02	LV-Latvia_02
## LV-Latvia_03	LV-Latvia_03

## LV-Latvia_04	LV-Latvia_04
## LV-Latvia_05	LV-Latvia_05
## LV-Latvia_06	LV-Latvia_06
## LV-Latvia_07	LV-Latvia_07
## LV-Latvia_08	LV-Latvia_08
## LV-Latvia_09	LV-Latvia_09
## LV-Latvia_Highest, Top, 10	LV-Latvia_Highest, Top, 10
## LT-Lithuania_Lowest, Bottom, 01	LT-Lithuania_Lowest, Bottom, 01
## LT-Lithuania_02	LT-Lithuania_02
## LT-Lithuania_03	LT-Lithuania_03
## LT-Lithuania_04	LT-Lithuania_04
## LT-Lithuania_05	LT-Lithuania_05
## LT-Lithuania_06	LT-Lithuania_06
## LT-Lithuania_07	LT-Lithuania_07
## LT-Lithuania_08	LT-Lithuania_08
## LT-Lithuania_09	LT-Lithuania_09
## LT-Lithuania_Highest, Top, 10	LT-Lithuania_Highest, Top, 10
## NO-Norway_Lowest, Bottom, 01	NO-Norway_Lowest, Bottom, 01
## NO-Norway_03	NO-Norway_03
## NO-Norway_04	NO-Norway_04
## NO-Norway_05	NO-Norway_05
## NO-Norway_06	NO-Norway_06
## NO-Norway_07	NO-Norway_07
## NO-Norway_08	NO-Norway_08
## NO-Norway_09	NO-Norway_09
## PH-Philippines_Lowest, Bottom, 01	PH-Philippines_Lowest, Bottom, 01
## PH-Philippines_02	PH-Philippines_02
## PH-Philippines_03	PH-Philippines_03
## PH-Philippines_04	PH-Philippines_04
## PH-Philippines_05	PH-Philippines_05
## PH-Philippines_06	PH-Philippines_06
## PH-Philippines_07	PH-Philippines_07
## PH-Philippines_08	PH-Philippines_08
## PH-Philippines_09	PH-Philippines_09
## PH-Philippines_Highest, Top, 10	PH-Philippines_Highest, Top, 10
## RU-Russia_Lowest, Bottom, 01	RU-Russia_Lowest, Bottom, 01
## RU-Russia_02	RU-Russia_02
## RU-Russia_03	RU-Russia_03
## RU-Russia_04	RU-Russia_04
## RU-Russia_05	RU-Russia_05
## RU-Russia_06	RU-Russia_06
## RU-Russia_07	RU-Russia_07
## RU-Russia_08	RU-Russia_08
## RU-Russia_09	RU-Russia_09
## SK-Slovakia_Lowest, Bottom, 01	SK-Slovakia_Lowest, Bottom, 01
## SK-Slovakia_02	SK-Slovakia_02
## SK-Slovakia_03	SK-Slovakia_03
## SK-Slovakia_04	SK-Slovakia_04

## SK-Slovakia_05	SK-Slovakia_05
## SK-Slovakia_06	SK-Slovakia_06
## SK-Slovakia_07	SK-Slovakia_07
## SK-Slovakia_08	SK-Slovakia_08
## SK-Slovakia_09	SK-Slovakia_09
## SK-Slovakia_Highest, Top, 10	SK-Slovakia_Highest, Top, 10
## SI-Slovenia_Lowest, Bottom, 01	SI-Slovenia_Lowest, Bottom, 01
## SI-Slovenia_02	SI-Slovenia_02
## SI-Slovenia_03	SI-Slovenia_03
## SI-Slovenia_04	SI-Slovenia_04
## SI-Slovenia_05	SI-Slovenia_05
## SI-Slovenia_06	SI-Slovenia_06
## SI-Slovenia_07	SI-Slovenia_07
## SI-Slovenia_08	SI-Slovenia_08
## SI-Slovenia_09	SI-Slovenia_09
## ZA-South Africa_Lowest, Bottom, 01	ZA-South Africa_Lowest, Bottom, 01
## ZA-South Africa_02	ZA-South Africa_02
## ZA-South Africa_03	ZA-South Africa_03
## ZA-South Africa_04	ZA-South Africa_04
## ZA-South Africa_05	ZA-South Africa_05
## ZA-South Africa_06	ZA-South Africa_06
## ZA-South Africa_07	ZA-South Africa_07
## ZA-South Africa_08	ZA-South Africa_08
## ZA-South Africa_09	ZA-South Africa_09
## ZA-South Africa_Highest, Top, 10	ZA-South Africa_Highest, Top, 10
## ES-Spain_Lowest, Bottom, 01	ES-Spain_Lowest, Bottom, 01
## ES-Spain_02	ES-Spain_02
## ES-Spain_03	ES-Spain_03
## ES-Spain_04	ES-Spain_04
## ES-Spain_05	ES-Spain_05
## ES-Spain_06	ES-Spain_06
## ES-Spain_07	ES-Spain_07
## SR-Suriname_Lowest, Bottom, 01	SR-Suriname_Lowest, Bottom, 01
## SR-Suriname_02	SR-Suriname_02
## SR-Suriname_03	SR-Suriname_03
## SR-Suriname_04	SR-Suriname_04
## SR-Suriname_05	SR-Suriname_05
## SR-Suriname_06	SR-Suriname_06
## SR-Suriname_07	SR-Suriname_07
## SR-Suriname_08	SR-Suriname_08
## SR-Suriname_09	SR-Suriname_09
## SR-Suriname_Highest, Top, 10	SR-Suriname_Highest, Top, 10
## SE-Sweden_Lowest, Bottom, 01	SE-Sweden_Lowest, Bottom, 01
## SE-Sweden_02	SE-Sweden_02
## SE-Sweden_03	SE-Sweden_03
## SE-Sweden_04	SE-Sweden_04
## SE-Sweden_05	SE-Sweden_05
## SE-Sweden_06	SE-Sweden_06

## SE-Sweden_07	SE-Sweden_07
## SE-Sweden_08	SE-Sweden_08
## SE-Sweden_09	SE-Sweden_09
## SE-Sweden_Highest, Top, 10	SE-Sweden_Highest, Top, 10
## CH-Switzerland_02	CH-Switzerland_02
## CH-Switzerland_03	CH-Switzerland_03
## CH-Switzerland_04	CH-Switzerland_04
## CH-Switzerland_05	CH-Switzerland_05
## CH-Switzerland_06	CH-Switzerland_06
## CH-Switzerland_07	CH-Switzerland_07
## CH-Switzerland_08	CH-Switzerland_08
## CH-Switzerland_09	CH-Switzerland_09
## CH-Switzerland_Highest, Top, 10	CH-Switzerland_Highest, Top, 10
## TH-Thailand_Lowest, Bottom, 01	TH-Thailand_Lowest, Bottom, 01
## TH-Thailand_02	TH-Thailand_02
## TH-Thailand_03	TH-Thailand_03
## TH-Thailand_04	TH-Thailand_04
## TH-Thailand_05	TH-Thailand_05
## TH-Thailand_06	TH-Thailand_06
## TH-Thailand_07	TH-Thailand_07
## TH-Thailand_08	TH-Thailand_08
## TH-Thailand_09	TH-Thailand_09
## TH-Thailand_Highest, Top, 10	TH-Thailand_Highest, Top, 10
## TR-Turkey_Lowest, Bottom, 01	TR-Turkey_Lowest, Bottom, 01
## TR-Turkey_02	TR-Turkey_02
## TR-Turkey_03	TR-Turkey_03
## TR-Turkey_04	TR-Turkey_04
## TR-Turkey_05	TR-Turkey_05
## TR-Turkey_06	TR-Turkey_06
## TR-Turkey_07	TR-Turkey_07
## TR-Turkey_08	TR-Turkey_08
## TR-Turkey_Highest, Top, 10	TR-Turkey_Highest, Top, 10
## US-United States_Lowest, Bottom, 01	US-United States_Lowest, Bottom, 01
## US-United States_02	US-United States_02
## US-United States_03	US-United States_03
## US-United States_04	US-United States_04
## US-United States_05	US-United States_05
## US-United States_06	US-United States_06
## US-United States_07	US-United States_07
## US-United States_08	US-United States_08
## US-United States_09	US-United States_09
## US-United States_Highest, Top, 10	US-United States_Highest, Top, 10
## VE-Venezuela_Lowest, Bottom, 01	VE-Venezuela_Lowest, Bottom, 01
## VE-Venezuela_02	VE-Venezuela_02
## VE-Venezuela_03	VE-Venezuela_03
## VE-Venezuela_04	VE-Venezuela_04
## VE-Venezuela_05	VE-Venezuela_05
## VE-Venezuela_06	VE-Venezuela_06

```

## VE-Venezuela_07                                VE-Venezuela_07
## VE-Venezuela_08                                VE-Venezuela_08
## VE-Venezuela_Highest, Top, 10                  VE-Venezuela_Highest, Top, 10
##
## Response Categories (Voting Behavior):
##                                     Dim1 Dim2                                Label
## Yes                                -0.4935639    0                                Yes
## No, NZ: incl. was not eligible  2.0260800    0 No, NZ: incl. was not eligible

```

## Summary of Findings

This study employed Correspondence Analysis (CA3 and NSCA3) to investigate social and political values across various countries, focusing on religious attendance patterns and voting behavior as key indicators.

### Social Values (Religiosity - CA3 Analysis):

The analysis of Country, Religious Group, and Religious Attendance revealed significant international diversity in social values related to religiosity. The primary dimension of differentiation (accounting for 43.5% of inertia) starkly contrasted profiles characterized by **no religious attendance** with those exhibiting **regular to frequent attendance**. A secondary dimension (20.4% inertia) further distinguished **occasional attendance** from the extremes of either **very frequent attendance or no attendance at all**.

Key patterns observed include:

- A prominent cluster of **secular or low-observance profiles**, particularly within European countries (often among those identifying as “No Religion” or some “Christian” affiliations).
- Distinct clusters of **high-observance profiles**, notably among Islamic groups in countries like the Philippines and Thailand, as well as certain Protestant and Christian groups in various nations.
- This highlights that while some countries exhibit broad tendencies towards secularism or high religiosity within specific demographic segments, the overall landscape of social values tied to religious practice is highly varied and context-dependent.

### Political Values (Voting Behavior - NSCA3 Analysis):

The investigation into how Country and Socioeconomic Status (SES) predict Voting Behavior demonstrated that these relationships can be effectively summarized along a **single dominant dimension**. This dimension clearly separated profiles more inclined to **vote “Yes”** from those more

inclined to **vote “No” or be ineligible.**

Key patterns observed include:

- Certain Country-Socioeconomic profiles showed a strong propensity towards **voting “Yes”** (e.g., many Australian profiles across different SES levels; specific SES segments in Belgium and Germany).
- Conversely, other profiles exhibited a strong association with **not voting or ineligibility**. These included, for example, the lowest SES groups in countries like Chile, Finland, and Norway, the highest SES group in Denmark, and specific SES segments within the United States (e.g., “US-United States\_02”).
- A critical finding is the **complex interaction between country and SES**. The impact of socioeconomic status on voting behavior was not uniform globally; rather, it varied significantly by national context. For instance, high SES was associated with not voting in some countries, while lower SES was associated with not voting in others, indicating that political values concerning electoral participation are shaped by a nuanced interplay of individual status and national environment.

### **Overall Conclusion:**

This research underscores that “common” social or political values are often specific to particular demographic segments within countries rather than being monolithically national. While broad patterns of religiosity and electoral participation emerge, the significant variations observed highlight the importance of considering both national context and internal demographic factors (like religious affiliation or socioeconomic status) when analyzing social and political values internationally. The analyses successfully mapped these complex associations, revealing distinct typologies of social religiosity and political engagement.