Calculation and analysis of variables

Socioeconomic and Gender Disparities: A Multi-Country Study

Andreas Laffert, Research asistant

2025-01-09

1 Presentation

This is the calculation and analysis of variables code of the data for the project Socioeconomic and Gender Disparities: A Multi-Country Study. The data used is `db_proc.RData`

2 Libraries

First, we load the necessary libraries. In this case, we use `pacman::p_load` to load and call libraries in one move.

```
if (! require("pacman")) install.packages("pacman")

pacman::p_load(tidyverse,
               haven,
               sjmisc,
               sjPlot,
               here,
               lavaan,
               psych,
               rstatix,
               ggdist,
               patchwork,
               sjlabelled,
```

```
                semTools,
                gtools,
                RColorBrewer,
                skimr)

options(scipen=999)
rm(list = ls())
```

3 Data

We load the database from the local path. Modify this later.

```
load(file = here("output/data/db_proc.RData"))

glimpse(db_proc)
```

```
Rows: 4,209
Columns: 212
$ ID                          <dbl> 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 1~
$ StartDate                   <dttm> 2024-04-28 11:11:20, 2024-04-28 11:12:34, 2~
$ EndDate                     <dttm> 2024-04-28 11:30:12, 2024-04-28 11:31:15, 2~
$ IPAddress                   <chr> "90.167.243.1", "83.58.124.179", "79.152.186~
$ Duration__in_seconds        <dbl> 1132, 1120, 1192, 1410, 1328, 645, 933, 886,~
$ RecordedDate                <dttm> 2024-04-28 11:30:12, 2024-04-28 11:31:16, 2~
$ ResponseId                  <chr> "R_1eqka09S3bZXYTp", "R_42oDc55cfSucfrX", "R~
$ LocationLatitude            <chr> "41.6362", "41.3891", "41.4287", "41.5453", ~
$ LocationLongitude           <chr> "-4.7435", "2.1606", "2.2164", "2.4414", "-5~
$ eco_in_1                    <dbl+lbl> 6, 6, 7, 6, 6, 4, 4, 3, 6, 3, 7, 7, 5, 5~
$ eco_in_2                    <dbl+lbl> 6, 6, 7, 6, 6, 4, 5, 4, 3, 4, 1, 6, 5, 6~
$ eco_in_3                    <dbl+lbl> 7, 6, 7, 6, 6, 4, 2, 3, 5, 3, 5, 4, 6, 6~
$ jus_ine                     <dbl+lbl> 1, 2, 1, 1, 2, 5, 1, 1, 2, 1, 2, 5, 3, 4~
$ co_eco                      <dbl+lbl> 7, 7, 6, 4, 5, 3, 6, 6, 3, 2, 1, 4, 5, 5~
$ pp_pw_1                     <dbl+lbl> 7, 4, 6, 2, 5, 5, 3, 3, 2, 5, 7, 5, 5, 5~
$ pp_pw_2                     <dbl+lbl> 7, 5, 6, 3, 6, 5, 5, 7, 2, 5, 2, 5, 5, 5~
$ pp_pw_3                     <dbl+lbl> 7, 6, 7, 2, 5, 3, 3, 5, 2, 4, 2, 4, 5, 5~
$ pp_pw_4                     <dbl+lbl> 7, 4, 4, 1, 5, 5, 3, 5, 2, 5, 4, 3, 5, 5~
$ cc_pw_1                     <dbl+lbl> 5, 4, 6, 3, 6, 4, 5, 6, 5, 4, 4, 6, 6, 4~
$ cc_pw_2                     <dbl+lbl> 4, 2, 4, 2, 5, 4, 4, 4, 2, 4, 2, 4, 4, 4~
```

```
$ cc_pw_3               <dbl+lbl> 4, 3, 6, 4, 6, 4, 4, 4, 2, 5, 7, 5, 6, 4~
$ cc_pw_4               <dbl+lbl> 3, 5, 5, 3, 6, 4, 5, 5, 4, 4, 7, 6, 6, 4~
$ hc_pw_1               <dbl+lbl> 1, 1, 1, 1, 1, 4, 2, 2, 1, 3, 1, 2, 4, 4~
$ hc_pw_2               <dbl+lbl> 2, 1, 2, 3, 3, 4, 2, 3, 1, 6, 1, 2, 5, 4~
$ hc_pw_3               <dbl+lbl> 1, 1, 4, 2, 2, 4, 1, 2, 1, 3, 1, 2, 2, 4~
$ hc_pw_4               <dbl+lbl> 2, 2, 2, 1, 2, 3, 4, 2, 1, 4, 1, 2, 5, 4~
$ pp_pm_1               <dbl+lbl> 6, 5, 6, 4, 5, 5, 3, 6, 2, 5, 7, 5, 6, 5~
$ pp_pm_2               <dbl+lbl> 7, 5, 7, 2, 6, 3, 2, 6, 2, 5, 5, 5, 4, 5~
$ pp_pm_3               <dbl+lbl> 7, 6, 6, 3, 5, 3, 3, 6, 2, 5, 7, 3, 5, 5~
$ pp_pm_4               <dbl+lbl> 7, 4, 6, 3, 5, 3, 3, 5, 2, 4, 7, 4, 6, 5~
$ cc_pm_1               <dbl+lbl> 7, 4, 4, 3, 5, 4, 5, 3, 5, 3, 2, 5, 5, 4~
$ cc_pm_2               <dbl+lbl> 4, 2, 1, 1, 4, 4, 3, 4, 2, 2, 2, 4, 4, 4~
$ cc_pm_3               <dbl+lbl> 4, 3, 2, 3, 4, 4, 4, 4, 2, 3, 1, 4, 6, 4~
$ cc_pm_4               <dbl+lbl> 3, 5, 5, 2, 4, 5, 4, 4, 2, 3, 2, 6, 3, 4~
$ hc_pm_1               <dbl+lbl> 3, 1, 4, 3, 3, 3, 2, 4, 4, 4, 7, 3, 5, 4~
$ hc_pm_2               <dbl+lbl> 3, 1, 5, 3, 3, 3, 2, 3, 2, 4, 7, 3, 5, 4~
$ hc_pm_3               <dbl+lbl> 2, 1, 3, 1, 2, 4, 2, 3, 2, 5, 7, 3, 6, 4~
$ hc_pm_4               <dbl+lbl> 3, 2, 4, 2, 5, 4, 2, 4, 1, 5, 7, 3, 5, 4~
$ gen_in_1              <dbl+lbl> 6, 7, 6, 7, 7, 3, 7, 7, 6, 5, 4, 6, 7, 4~
$ gen_in_2              <dbl+lbl> 6, 7, 6, 5, 7, 3, 5, 6, 1, 6, 7, 7, 7, 5~
$ gen_in_3              <dbl+lbl> 5, 7, 5, 7, 4, 3, 4, 7, 6, 6, 7, 5, 6, 4~
$ gen_in_4              <dbl+lbl> 3, 6, 5, 6, 6, 3, 5, 5, 5, 6, 7, 5, 3, 5~
$ gen_in_5              <dbl+lbl> 4, 6, 3, 5, 7, 3, 7, 4, 6, 5, 6, 5, 3, 4~
$ gen_in_6              <dbl+lbl> 6, 7, 5, 6, 4, 2, 5, 7, 6, 6, 7, 5, 7, 4~
$ ps_m_1                <dbl+lbl> 7, 2, 4, 1, 3, 3, 3, 4, 1, 4, 1, 7, 6, 4~
$ ps_m_2                <dbl+lbl> 6, 1, 2, 5, 1, 4, 1, 4, 1, 1, 1, 5, 4, 4~
$ ps_m_3                <dbl+lbl> 6, 2, 4, 3, 4, 2, 4, 4, 1, 4, 7, 3, 6, 4~
$ hs_m_1                <dbl+lbl> 1, 1, 2, 1, 2, 3, 2, 2, 1, 3, 1, 2, 4, 4~
$ hs_m_2                <dbl+lbl> 1, 1, 5, 1, 3, 3, 1, 2, 1, 2, 1, 2, 5, 4~
$ hs_m_3                <dbl+lbl> 1, 2, 1, 1, 2, 4, 1, 2, 1, 3, 1, 3, 5, 4~
$ shif_1                <dbl+lbl> 1, 1, 2, 2, 2, 6, 1, 1, 1, 2, 1, 5, 5, 4~
$ shif_2                <dbl+lbl> 1, 1, 2, 1, 2, 5, 1, 1, 1, 2, 1, 4, 2, 4~
$ shif_3                <dbl+lbl> 1, 1, 1, 4, 2, 3, 1, 1, 1, 2, 3, 5, 3, 4~
$ femi                  <dbl+lbl> 7, 7, 3, 5, 5, 1, 7, 5, 6, 2, 4, 2, 1, 4~
$ co_gen                <dbl+lbl> 7, 7, 3, 4, 5, 3, 6, 5, 2, 2, 1, 4, 4, 4~
$ jus_gen               <dbl+lbl> 1, 2, 1, 2, 3, 3, 3, 1, 1, 1, 1, 5, 3, 4~
$ gen_compe             <dbl+lbl> 4, 6, 5, 5, 4, 4, 1, 4, 4, 4, 1, 5, 5, 4~
$ ge_ra_wo              <dbl> 70, 70, 60, 60, 40, 20, 50, 20, 27, 60, 85, ~
$ ge_ra_me              <dbl> 30, 30, 40, 40, 60, 80, 50, 80, 73, 40, 15, ~
$ quan_pw               <dbl+lbl> 1, 4, 5, 3, 5, 3, 3, 2, 1, 2, 1, 3, 2, 2~
$ quan_pm               <dbl+lbl> 1, 4, 5, 3, 5, 4, 3, 3, 1, 2, 1, 3, 2, 2~
```

```
$ quan_rw                <dbl+lbl> 1, 5, 5, 4, 7, 3, 2, 2, 7, 1, 5, 3, 4, 2~
$ quan_rm                <dbl+lbl> 1, 5, 5, 4, 7, 4, 2, 2, 7, 1, 5, 2, 4, 2~
$ fri_pw                 <dbl+lbl> 1, 1, 2, 3, 3, 4, 2, 1, 1, 3, 1, 2, 1, 1~
$ fri_pm                 <dbl+lbl> 1, 1, 1, 2, 3, 4, 2, 1, 1, 3, 1, 1, 1, 1~
$ fri_rw                 <dbl+lbl> 2, 4, 6, 4, 6, 4, 1, 1, 5, 1, 6, 4, 1, 1~
$ fri_rm                 <dbl+lbl> 2, 5, 6, 3, 6, 4, 1, 1, 5, 1, 7, 4, 1, 1~
$ qual_pw                <dbl+lbl> 4, 5, 4, 4, 6, 4, 3, 3, 2, 4, 4, 3, 2, 4~
$ qual_pm                <dbl+lbl> 4, 5, 3, 4, 4, 4, 3, 3, 2, 4, 4, 3, 2, 4~
$ qual_rw                <dbl+lbl> 2, 5, 6, 3, 5, 4, 3, 4, 4, 4, 7, 4, 3, 4~
$ qual_rm                <dbl+lbl> 2, 5, 5, 3, 5, 4, 3, 4, 4, 4, 7, 4, 3, 4~
$ mobi_up_1              <dbl+lbl> 4, 3, 3, 5, 2, 3, 1, 3, 1, 4, 5, 5, 6, 5~
$ mobi_up_2              <dbl+lbl> 4, 4, 5, 3, 3, 4, 1, 3, 1, 2, 4, 5, 5, 5~
$ mobi_up_3              <dbl+lbl> 5, 3, 1, 6, 2, 4, 1, 4, 1, 3, 3, 5, 5, 4~
$ mobi_down_1            <dbl+lbl> 5, 6, 6, 6, 5, 4, 5, 5, 6, 4, 5, 3, 2, 4~
$ mobi_down_2            <dbl+lbl> 5, 4, 5, 2, 4, 3, 4, 4, 5, 4, 1, 3, 2, 3~
$ mobi_down_3            <dbl+lbl> 4, 5, 3, 3, 5, 4, 3, 4, 6, 4, 1, 3, 2, 3~
$ condi_gender           <dbl+lbl> 0, 0, 0, 1, 0, 1, 1, 0, 1, 1, 1, 0, 1, 0~
$ condi_class            <dbl+lbl> 1, 1, 0, 0, 1, 1, 1, 0, 1, 0, 0, 0, 0, 1~
$ mor_1                  <dbl+lbl> 1, 4, 3, 6, 3, 4, 2, 3, 3, 5, 5, 2, 5, 4~
$ mor_2                  <dbl+lbl> 2, 3, 4, 5, 2, 5, 3, 4, 4, 4, 5, 3, 4, 4~
$ mor_3                  <dbl+lbl> 2, 3, 3, 4, 3, 4, 2, 3, 4, 3, 6, 3, 2, 4~
$ inm_1                  <dbl+lbl> 7, 5, 6, 3, 6, 4, 2, 3, 3, 4, 1, 7, 4, 4~
$ inm_2                  <dbl+lbl> 6, 4, 4, 2, 3, 3, 2, 3, 5, 2, 1, 6, 3, 4~
$ inm_3                  <dbl+lbl> 5, 5, 4, 1, 6, 5, 2, 4, 4, 4, 2, 5, 5, 4~
$ war_1                  <dbl+lbl> 4, 4, 2, 4, 5, 4, 5, 4, 5, 5, 5, 3, 5, 4~
$ war_2                  <dbl+lbl> 2, 3, 4, 5, 4, 3, 3, 4, 4, 4, 5, 3, 4, 4~
$ war_3                  <dbl+lbl> 4, 4, 2, 6, 5, 3, 5, 5, 4, 5, 5, 3, 4, 4~
$ com_1                  <dbl+lbl> 7, 6, 4, 5, 5, 5, 3, 4, 4, 3, 6, 5, 3, 5~
$ com_2                  <dbl+lbl> 6, 6, 5, 5, 5, 5, 3, 5, 5, 4, 6, 5, 2, 5~
$ com_3                  <dbl+lbl> 5, 5, 3, 5, 5, 6, 3, 4, 5, 5, 6, 4, 3, 5~
$ ph_1                   <dbl+lbl> 4, 1, 2, 1, 6, 2, 1, 1, 5, 1, 1, 6, 3, 2~
$ ph_2                   <dbl+lbl> 4, 1, 6, 1, 6, 2, 1, 1, 5, 4, 1, 5, 4, 2~
$ ah_1                   <dbl+lbl> 2, 2, 1, 1, 5, 2, 2, 1, 1, 1, 1, 1, 2, 2~
$ ah_2                   <dbl+lbl> 2, 1, 2, 1, 5, 2, 2, 1, 1, 1, 1, 1, 1, 2~
$ pf_1                   <dbl+lbl> 4, 4, 5, 5, 3, 4, 2, 7, 3, 5, 7, 5, 5, 4~
$ pf_2                   <dbl+lbl> 1, 5, 1, 4, 3, 5, 5, 2, 5, 2, 4, 3, 4, 4~
$ af_1                   <dbl+lbl> 1, 4, 1, 5, 3, 3, 3, 7, 2, 2, 7, 2, 3, 4~
$ af_2                   <dbl+lbl> 1, 3, 2, 7, 4, 4, 2, 7, 4, 5, 4, 4, 5, 4~
$ ad_1                   <dbl+lbl> 1, 4, 2, 5, 3, 5, 1, 5, 2, 3, 2, 3, 4, 4~
$ ad_2                   <dbl+lbl> 4, 4, 5, 6, 2, 5, 3, 7, 2, 6, 7, 4, 6, 4~
$ co_1                   <dbl+lbl> 2, 1, 1, 1, 6, 2, 4, 1, 5, 1, 1, 1, 3, 2~
```

```
$ co_2                   <dbl+lbl> 2, 2, 2, 1, 6, 2, 2, 1, 4, 1, 1, 3, 4, 2~
$ en_1                   <dbl+lbl> 1, 1, 1, 2, 2, 2, 4, 1, 3, 1, 1, 1, 1, 2~
$ en_2                   <dbl+lbl> 1, 1, 1, 1, 2, 2, 4, 1, 4, 1, 1, 1, 1, 2~
$ pi_1                   <dbl+lbl> 1, 1, 6, 4, 5, 1, 2, 6, 4, 3, 6, 6, 6, 2~
$ pi_2                   <dbl+lbl> 1, 1, 6, 3, 1, 2, 1, 7, 2, 4, 7, 5, 5, 2~
$ sk_1                   <dbl+lbl> 7, 6, 6, 7, 6, 2, 7, 6, 4, 5, 7, 5, 3, 4~
$ sk_2                   <dbl+lbl> 7, 7, 6, 5, 7, 2, 7, 7, 5, 6, 7, 3, 5, 4~
$ sk_3                   <dbl+lbl> 7, 7, 7, 7, 7, 2, 7, 5, 4, 6, 7, 7, 5, 4~
$ ex_po_1                <dbl+lbl> NA, NA,  5,  7, NA, NA, NA,  7, NA,  7, ~
$ ex_po_2                <dbl+lbl> NA, NA,  6,  5, NA, NA, NA,  6, NA,  7, ~
$ in_po_1                <dbl+lbl> NA, NA,  4,  2, NA, NA, NA,  4, NA,  4, ~
$ in_po_2                <dbl+lbl> NA, NA,  2,  1, NA, NA, NA,  5, NA,  5, ~
$ ex_we_1                <dbl+lbl>  7,  7, NA, NA,  7,  4,  7, NA,  6, NA, ~
$ ex_we_2                <dbl+lbl>  7,  7, NA, NA,  7,  4,  7, NA,  6, NA, ~
$ in_we_1                <dbl+lbl>  7,  5, NA, NA,  3,  5,  3, NA,  2, NA, ~
$ in_we_2                <dbl+lbl>  3,  5, NA, NA,  3,  5,  2, NA,  1, NA, ~
$ carin_control_1        <dbl+lbl> NA, NA,  4,  7, NA, NA, NA,  2, NA,  4, ~
$ carin_control_2        <dbl+lbl> NA, NA,  3,  1, NA, NA, NA,  2, NA,  4, ~
$ carin_attitude_1       <dbl+lbl> NA, NA,  5,  1, NA, NA, NA,  4, NA,  2, ~
$ carin_attitude_2       <dbl+lbl> NA, NA,  7,  1, NA, NA, NA,  2, NA,  3, ~
$ carin_reciprocity_1    <dbl+lbl> NA, NA,  3,  4, NA, NA, NA,  3, NA,  3, ~
$ carin_reciprocity_2    <dbl+lbl> NA, NA,  5,  1, NA, NA, NA,  2, NA,  4, ~
$ carin_identity_1       <dbl+lbl> NA, NA,  3,  1, NA, NA, NA,  1, NA,  1, ~
$ carin_identity_2       <dbl+lbl> NA, NA,  1,  2, NA, NA, NA,  5, NA,  1, ~
$ carin_need_1           <dbl+lbl> NA, NA,  6,  1, NA, NA, NA,  1, NA,  5, ~
$ carin_need_2           <dbl+lbl> NA, NA,  5,  1, NA, NA, NA,  1, NA,  5, ~
$ greedy_1               <dbl+lbl>  7,  6, NA, NA,  7,  2,  3, NA,  7, NA, ~
$ greedy_2               <dbl+lbl>  7,  6, NA, NA,  7,  3,  4, NA,  6, NA, ~
$ greedy_3               <dbl+lbl>  7,  6, NA, NA,  7,  3,  4, NA,  5, NA, ~
$ punish_1               <dbl+lbl>  7,  7, NA, NA,  7,  2,  6, NA,  7, NA, ~
$ punish_2               <dbl+lbl>  7,  7, NA, NA,  7,  2,  7, NA,  7, NA, ~
$ punish_3               <dbl+lbl>  7,  7, NA, NA,  7,  2,  7, NA,  7, NA, ~
$ asc_pw                 <dbl> 50, 61, 69, 53, 80, 51, 50, 73, 51, 65, 51, ~
$ asc_pm                 <dbl> 50, 61, 61, 54, 70, 47, 51, 39, 51, 65, 30, ~
$ asc_rw                 <dbl> 50, 76, 40, 48, 80, 65, 51, 73, 51, 15, 80, ~
$ asc_rm                 <dbl> 50, 75, 61, 51, 70, 64, 51, 58, 51, 15, 70, ~
$ wel_abu_1              <dbl+lbl> 1, 1, 3, 1, 2, 2, 3, 4, 1, 4, 2, 3, 3, 5~
$ wel_abu_2              <dbl+lbl> 1, 1, 2, 1, 2, 2, 3, 2, 1, 2, 2, 4, 3, 5~
$ wel_pa_1               <dbl+lbl> 7, 2, 7, 1, 6, 2, 3, 6, 5, 7, 7, 5, 6, 5~
$ wel_pa_2               <dbl+lbl> 7, 2, 7, 1, 6, 2, 5, 6, 4, 6, 7, 7, 5, 5~
$ wel_ho_1               <dbl+lbl> 1, 1, 1, 1, 2, 2, 2, 3, 1, 5, 1, 1, 2, 5~
```

```
$ wel_ho_2                <dbl+lbl> 1, 1, 1, 1, 2, 2, 4, 4, 1, 6, 1, 4, 2, 5~
$ pro_pw                  <dbl+lbl> 4, 2, 3, 1, 2, 3, 3, 2, 1, 2, 1, 2, 5, 4~
$ pro_rw                  <dbl+lbl> 4, 2, 6, 1, 5, 4, 3, 4, 1, 6, 7, 5, 6, 4~
$ ris_pw                  <dbl+lbl> 6, 2, 6, 1, 6, 4, 3, 3, 4, 4, 7, 6, 6, 4~
$ ris_rw                  <dbl+lbl> 3, 1, 5, 1, 4, 4, 3, 3, 5, 5, 5, 4, 2, 4~
$ pre_pw                  <dbl+lbl> 6, 3, 6, 3, 6, 4, 4, 3, 5, 5, 7, 4, 6, 5~
$ pre_rw                  <dbl+lbl> 3, 1, 4, 3, 2, 4, 2, 3, 3, 2, 2, 5, 1, 2~
$ redi_1                  <dbl+lbl> 7, 7, 7, 5, 7, 4, 7, 7, 6, 7, 6, 5, 6, 5~
$ redi_2                  <dbl+lbl> 7, 7, 6, 1, 7, 3, 7, 7, 7, 7, 1, 6, 7, 6~
$ effec_pw_1              <dbl+lbl> 1, 1, 5, 1, 3, 3, 2, 2, 2, 3, 2, 4, 2, 4~
$ effec_pw_2              <dbl+lbl> 7, 6, 3, 5, 4, 3, 3, 5, 2, 3, 4, 3, 6, 4~
$ effec_pm_1              <dbl+lbl> 1, 1, 6, 1, 4, 4, 3, 3, 2, 5, 7, 5, 5, 4~
$ effec_pm_2              <dbl+lbl> 7, 6, 3, 4, 3, 4, 3, 4, 2, 4, 7, 5, 3, 4~
$ poli_progre_1           <dbl+lbl> 7, 7, 5, 6, 7, 2, 7, 6, 6, 6, 7, 6, 5, 6~
$ poli_progre_2           <dbl+lbl> 7, 7, 5, 6, 7, 3, 5, 7, 6, 6, 7, 6, 6, 6~
$ poli_restri_1           <dbl+lbl> 7, 4, 6, 1, 6, 3, 4, 4, 4, 6, 6, 3, 4, 5~
$ poli_restri_2           <dbl+lbl> 3, 6, 5, 1, 4, 3, 2, 6, 3, 4, 7, 5, 5, 5~
$ aut_pw_1                <dbl+lbl> 7, 6, 3, 5, 5, 4, 2, 2, 3, 4, 7, 3, 3, 4~
$ aut_pm_1                <dbl+lbl> 7, 6, 3, 5, 4, 4, 2, 3, 4, 4, 7, 2, 3, 4~
$ depe_pw_1               <dbl+lbl> 6, 2, 5, 1, 6, 4, 5, 4, 4, 4, 7, 5, 5, 5~
$ depe_pm_1               <dbl+lbl> 6, 3, 5, 1, 6, 4, 5, 4, 4, 4, 7, 5, 5, 5~
$ condi_viole             <dbl+lbl> 0, 1, 0, 0, 1, 1, 1, 1, 0, 0, 0, 1, 1, 1~
$ hara_pw_1               <dbl+lbl> 7, 6, 3, 7, 5, 5, 5, 5, 5, 6, 4, 5, 4, 4~
$ hara_pw_2               <dbl+lbl> 7, 7, 7, 7, 7, 7, 7, 6, 7, 7, 7, 7, 5, 4~
$ hara_pw_3               <dbl+lbl> 7, 6, 2, 7, 6, 7, 7, 5, 6, 7, 7, 7, 6, 4~
$ abu_pw_1                <dbl+lbl> 7, 7, 3, 7, 5, 7, 7, 6, 6, 7, 7, 7, 7, 5~
$ abu_pw_2                <dbl+lbl> 7, 7, 4, 7, 6, 7, 7, 7, 7, 7, 7, 7, 7, 5~
$ abu_pw_3                <dbl+lbl> 7, 7, 6, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 6~
$ viole_pw_1              <dbl+lbl> 7, 5, 7, 2, 3, 3, 3, 6, 4, 7, 6, 5, 2, 3~
$ viole_pw_2              <dbl+lbl> 7, 6, 7, 2, 5, 4, 4, 5, 4, 6, 6, 5, 3, 3~
$ viole_pw_3              <dbl+lbl> 7, 7, 6, 2, 7, 4, 4, 6, 6, 7, 6, 5, 5, 3~
$ viole_pw_4              <dbl+lbl> 7, 5, 6, 2, 5, 4, 4, 6, 4, 6, 6, 4, 2, 3~
$ viole_pw_5              <dbl+lbl> 7, 2, 6, 2, 2, 3, 4, 4, 7, 6, 4, 3, 3, 3~
$ viole_pw_6              <dbl+lbl> 7, 6, 5, 2, 6, 5, 4, 6, 6, 6, 7, 4, 4, 3~
$ barri_pw_1              <dbl+lbl> 6, 5, 7, 2, 2, 3, 6, 6, 6, 7, 7, 7, 5, 2~
$ barri_pw_2              <dbl+lbl> 6, 1, 7, 2, 1, 3, 5, 7, 6, 7, 7, 6, 3, 2~
$ barri_pw_3              <dbl+lbl> 6, 6, 6, 2, 4, 4, 3, 7, 6, 6, 7, 4, 5, 2~
$ barri_pw_4              <dbl+lbl> 6, 3, 6, 2, 3, 4, 6, 7, 6, 6, 7, 4, 2, 2~
$ barri_pw_5              <dbl+lbl> 6, 6, 5, 2, 6, 4, 6, 5, 4, 7, 7, 3, 3, 2~
$ perpe_1                 <dbl+lbl> 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1~
$ perpe_2                 <dbl+lbl> 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1~
```

```
$ perpe_3                    <dbl+lbl> 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1~
$ perpe_4                    <dbl+lbl> 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1~
$ perpe_5                    <dbl+lbl> 1, 1, 1, 1, 2, 1, 1, 1, 1, 1, 1, 1, 1, 1~
$ age                        <dbl+lbl> 54, 58, 57, 30, 25, 22, 27, 29, 22, 41, ~
$ sex                        <dbl+lbl> 2, 1, 2, 1, 2, 2, 1, 1, 1, 2, 1, 1, 2, 2~
$ sex_other                  <chr> "", "", "", "", "", "", "", "", "", "", "", ~
$ edu                        <dbl+lbl> 5, 5, 5, 6, 5, 5, 5, 4, 5, 5, 6, 5, 6, 6~
$ ses                        <dbl+lbl> 6, 6, 6, 7, 7, 7, 6, 5, 5, 4, 6, 8, 6, 5~
$ hig_ide                    <dbl+lbl> 2, 1, 1, 4, 2, 4, 1, 2, 2, 1, 3, 4, 3, 3~
$ mid_ide                    <dbl+lbl> 5, 6, 6, 6, 6, 5, 4, 6, 4, 3, 7, 6, 6, 5~
$ low_ide                    <dbl+lbl> 3, 1, 2, 2, 1, 2, 3, 2, 3, 5, 1, 3, 2, 2~
$ po                         <dbl+lbl> 1, 2, 2, 3, 2, 5, 1, 2, 2, 1, 5, 6, 6, 3~
$ country_residence          <dbl+lbl> 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9~
$ country_residence_other    <chr> "", "", "", "", "", "", "", "", "", "", "", ~
$ country_residence_recoded <dbl+lbl> 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9~
$ lang                       <dbl+lbl> 1, 1, 3, 3, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1~
$ lang_other                 <chr> "", "", "Catalán", "Catalán", "", "", "", ""~
$ lang_recoded               <dbl+lbl> 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1~
$ inc                        <dbl> 3200, 1300, 3000, 60000, 3500, 600, 1800, 70~
$ currency                   <dbl+lbl> 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7~
$ post_code                  <chr> "40197", "47001", "08020", "00001", "41005",~
$ municipality               <chr> "Segovia", "Valladolid", "sant marti", "-", ~
$ n_perso                    <dbl+lbl> 3, 1, 4, 2, 3, 3, 3, 2, 1, 3, 1, 3, 4, 1~
$ ori_sex                    <dbl+lbl> 1, 1, 1, 1, 1, 1, 1, 1, 3, 1, 1, 1, 1, 1~
$ ori_sex_other              <chr> "", "", "", "", "", "", "", "", "", "", "", ~
$ relation                   <dbl+lbl> 1, 2, 1, 1, 1, 2, 1, 1, 2, 1, 2, 1, 1, 1~
$ natio_recoded              <dbl+lbl> 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9~
$ regional_area              <dbl+lbl> 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4~
```

We have 4,209 cases or rows and 212 variables or columns.

4 Functions

```r
describe_kable <- function(data, vars) {
  psych::describe(data[, vars]) %>%
    kableExtra::kable(format = "markdown", digits = 3)
}
```

```r
fit_correlations <- function(data, vars) {
  M <- cor(data[, vars], method = "pearson", use = "complete.obs")
  P <- psych::polychoric(data[, vars])

  diag(M) <- NA
  diag(P$rho) <- NA

  rnames <- paste0(LETTERS[1:length(vars)], ". ", vars)
  cnames <- paste0("(", LETTERS[1:length(vars)], ")")

  rownames(M) <- rnames
  colnames(M) <- cnames
  rownames(P$rho) <- rnames
  colnames(P$rho) <- cnames

  list(pearson = M, polychoric = P$rho)
}

corr_plots <- function(cor_list, data, db_name = "SOGEDI") {
  p1 <- wrap_elements(
    ~corrplot::corrplot(
      cor_list$pearson,
      method = "color",
      type = "upper",
      col = colorRampPalette(c("#E16462", "white", "#0D0887"))(12),
      tl.pos = "lt",
      tl.col = "black",
      addrect = 2,
      rect.col = "black",
      addCoef.col = "white",
      cl.cex = 0.8,
      cl.align.text = 'l',
      number.cex = 1.1,
      na.label = "-",
      bg = "white"
    )
  ) + labs(title = 'I. Pearson correlations')

  p2 <- wrap_elements(
    ~corrplot::corrplot(
```

```
      cor_list$polychoric,
      method = "color",
      type = "upper",
      col = colorRampPalette(c("#E16462", "white", "#0D0887"))(12),
      tl.pos = "lt",
      tl.col = "black",
      addrect = 2,
      rect.col = "black",
      addCoef.col = "white",
      cl.cex = 0.8,
      cl.align.text = 'l',
      number.cex = 1.1,
      na.label = "-",
      bg = "white"
    )
  ) + labs(title = 'II. Polychoric correlations')

  p1 / p2 +
    plot_annotation(
      caption = paste0(
        "Source: Authors calculation based on ", db_name,
        " database (n=", nrow(data), ")"
      )
    )
}

alphas <- function(data, vars, new_var) {
  alpha_cronbach <- psych::alpha(data[, vars])
  raw_alpha <- alpha_cronbach$total$raw_alpha

  poly_matrix <- psych::polychoric(data[, vars])
  alpha_ordinal <- psych::alpha(poly_matrix$rho)
  ord_alpha <- alpha_ordinal$total$raw_alpha

  data[[new_var]] <- rowMeans(data[, vars], na.rm = TRUE)
  new_var_summary <- summary(data[[new_var]])

  list(
    raw_alpha       = raw_alpha,
    ord_alpha       = ord_alpha,
```

```
    new_var_summary = new_var_summary
  )
}

cfa_tables <- function(model) {

  sum_loadings <- standardizedSolution(model) %>%
    filter(op == "=~") %>%
    select(lhs, rhs, est.std) %>%
    rename(
      Factor    = lhs,
      Indicator = rhs,
      Loading   = est.std
    )

  loadings_table <- sum_loadings %>%
    kableExtra::kable(
      format    = "markdown",
      digits    = 3,
      booktabs  = TRUE,
      col.names = c("Factor", "Indicator", "Loading"),
      caption   = NULL
    ) %>%
    kableExtra::kable_styling(
      full_width        = FALSE,
      font_size         = 10,
      latex_options     = "HOLD_position",
      bootstrap_options = c("striped", "bordered")
    )

  sum_fit <- fitmeasures(model, output = "matrix")[c("chisq","df","cfi","tli","rmsea",
  sum_fit$nobs <- nobs(model)
  sum_fit$est  <- "DWLS"
  sum_fit <- data.frame(sum_fit) %>%
    mutate(rmsea.ci = paste0(rmsea, "(", rmsea.ci.lower, "-", rmsea.ci.upper, ")")) %>
    select(nobs, est, chisq, df, cfi, tli, rmsea.ci)

  colnames_fit <- c("$N$","Estimator","$\\chi^2$","df","CFI","TLI","RMSEA (95%)")

  fit_table <- sum_fit %>%
```

```r
    kableExtra::kable(
      format     = "markdown",
      digits     = 3,
      booktabs   = TRUE,
      col.names  = colnames_fit,
      caption    = NULL
    ) %>%
    kableExtra::kable_styling(
      full_width         = TRUE,
      font_size          = 10,
      latex_options      = "HOLD_position",
      bootstrap_options = c("striped", "bordered")
    )

  list(
    loadings_table = loadings_table,
    fit_table      = fit_table
  )
}
```

5 Processing

5.1 Block 1. Class inequality / Attitudes

5.1.1 Perception of economic inequality in daily live

```r
describe_kable(db_proc, c("eco_in_1", "eco_in_2", "eco_in_3"))
```

Table 1: Descriptive statistics of Perception of economic inequality in daily live

	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se
eco_in_1	1	4209	5.789	1.410	6	6.007	1.483	1	7	6	-1.167	0.961	0.022
eco_in_2	2	4209	5.794	1.468	6	6.040	1.483	1	7	6	-1.204	0.859	0.023

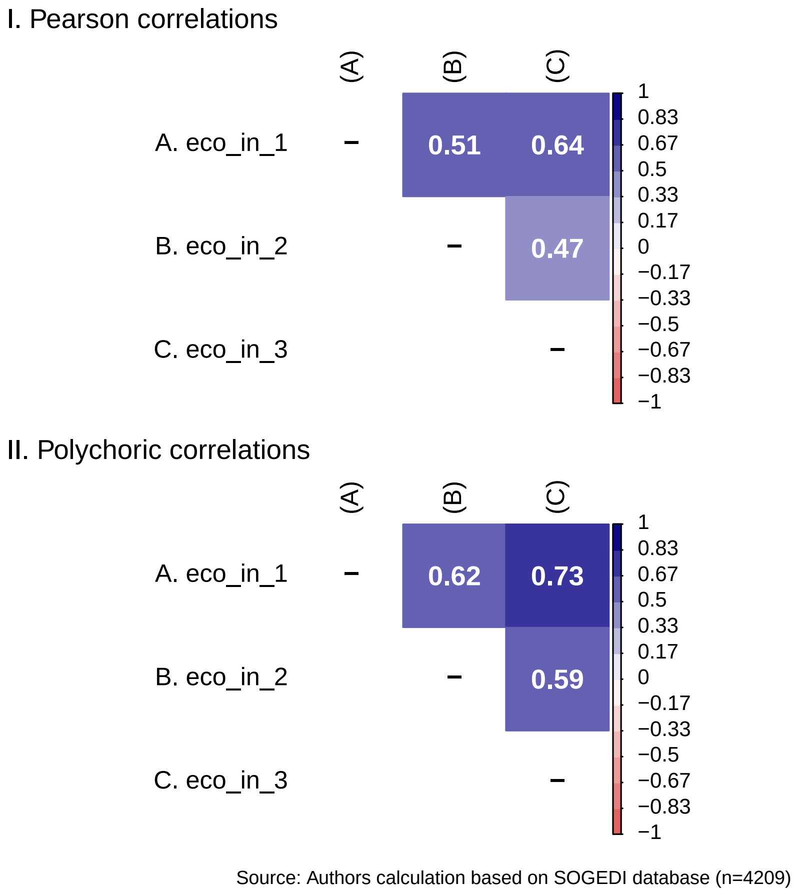
Table 1: Descriptive statistics of Perception of economic inequality in daily live

	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se
eco_in_3	3	4209	5.734	1.557	6	6.009	1.483	1	7	6	-1.251	0.954	0.024

```
# 1. Correlations

# fit pearson and polychoric
res1 <- fit_correlations(db_proc, c("eco_in_1", "eco_in_2", "eco_in_3"))
```

```
#Plot the matrix using corrplot

corr_plots(res1, db_proc, "SOGEDI")
```

Figure 1: Correlation matrixes of Perception of economic inequality in daily live




```r
# 2. Alpha

mi_variable <- "eco_in"
result1 <- alphas(db_proc, c("eco_in_1", "eco_in_2", "eco_in_3"), mi_variable)

result1$raw_alpha
```

```
[1] 0.7778003
```

```r
result1$ord_alpha
```

```
[1] 0.8475093
```

```r
result1$new_var_summary
```

```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  1.000   5.000   6.000   5.773   7.000   7.000 
```

```r
# 3. CFA

# model
model_cfa <- ' perc_eco_inequality =~ eco_in_1 + eco_in_2 + eco_in_3 '

# estimation
m1_cfa <- cfa(model = model_cfa,
              data = db_proc,
              estimator = "DWLS",
              ordered = T,
              std.lv = F)
```

```r
cfa_tables(m1_cfa)$loadings_table
```

Table 2: Standardized Factor Loadings of Perception of economic inequality in daily live

Factor	Indicator	Loading
perc_eco_inequality	eco_in_1	0.876
perc_eco_inequality	eco_in_2	0.710
perc_eco_inequality	eco_in_3	0.836

```r
cfa_tables(m1_cfa)$fit_table
```

Table 3: Summary fit indices of Perception of economic inequality in daily live

N	Estimator	χ^2	df	CFI	TLI	RMSEA (95%)
4209	DWLS	0	0	1	1	0(0-0)

5.1.2 Protective paternalism toward poor women and men

```r
describe_kable(db_proc, c("pp_pw_1", "pp_pw_2", "pp_pw_3", "pp_pw_4", "pp_pm_1", "pp_p
```

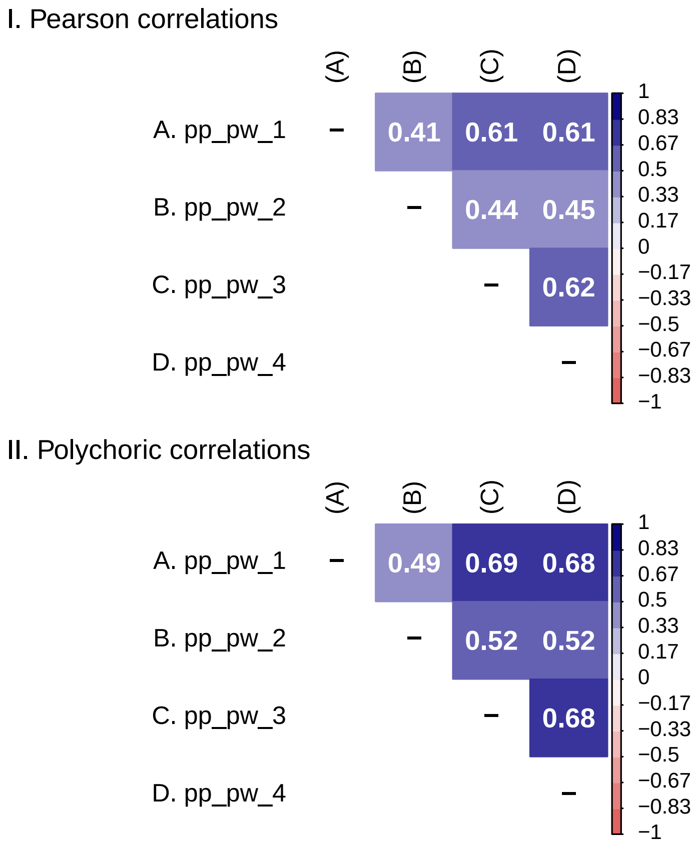
Table 4: Descriptive statistics of Protective paternalism toward poor women and men

	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se
pp_pw_1	1	4209	5.401	1.665	6	5.641	1.483	1	7	6	-0.929	0.150	0.026
pp_pw_2	2	4209	5.188	1.707	5	5.401	1.483	1	7	6	-0.741	-0.222	0.026
pp_pw_3	3	4209	5.249	1.686	5	5.466	1.483	1	7	6	-0.795	-0.083	0.026
pp_pw_4	4	4209	5.233	1.658	5	5.431	1.483	1	7	6	-0.736	-0.149	0.026
pp_pm_1	5	4209	5.338	1.661	6	5.560	1.483	1	7	6	-0.839	-0.034	0.026
pp_pm_2	6	4209	5.098	1.708	5	5.292	1.483	1	7	6	-0.664	-0.326	0.026
pp_pm_3	7	4209	5.185	1.711	5	5.395	1.483	1	7	6	-0.722	-0.286	0.026
pp_pm_4	8	4209	5.156	1.699	5	5.356	1.483	1	7	6	-0.695	-0.296	0.026

```r
# 1. Correlations ppw

# fit pearson and polychoric
res2 <- fit_correlations(db_proc, c("pp_pw_1", "pp_pw_2", "pp_pw_3", "pp_pw_4"))


res3 <- fit_correlations(db_proc, c("pp_pm_1", "pp_pm_2", "pp_pm_3", "pp_pm_4"))
```

```r
#Plot the matrix using corrplot

corr_plots(res2, db_proc, "SOGEDI")
```

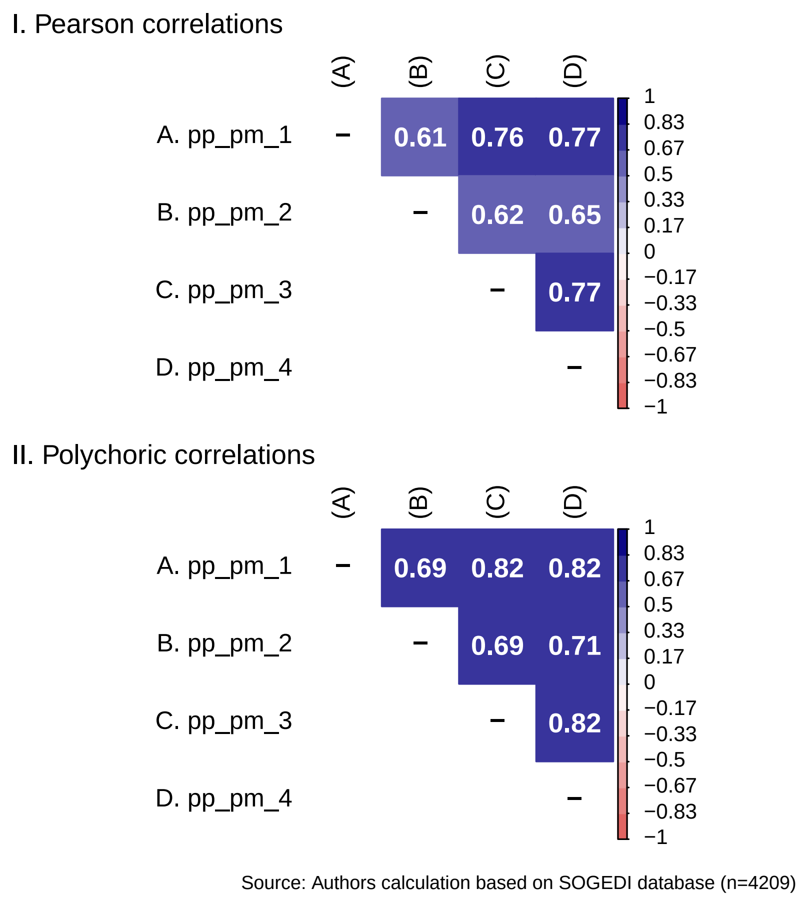
Figure 2: Correlation matrixes of Protective paternalism toward poor women



Source: Authors calculation based on SOGEDI database (n=4209)

```
#Plot the matrix using corrplot

corr_plots(res3, db_proc, "SOGEDI")
```

Figure 3: Correlation matrixes of Protective paternalism toward poor men




```
# 2. Alpha

mi_variable <- "pp_pw"
result2 <- alphas(db_proc, c("pp_pw_1", "pp_pw_2", "pp_pw_3", "pp_pw_4"), mi_variable)

result2$raw_alpha
```

```
[1] 0.8144432
```

```
result2$ord_alpha
```

```
[1] 0.8555965
```

```r
result2$new_var_summary
```

```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  1.000   4.500   5.500   5.268   6.250   7.000 
```

```r
# 2. Alpha

mi_variable <- "pp_pm"
result3 <- alphas(db_proc, c("pp_pm_1", "pp_pm_2", "pp_pm_3", "pp_pm_4"), mi_variable)

result3$raw_alpha
```

```
[1] 0.901213
```

```r
result3$ord_alpha
```

```
[1] 0.926433
```

```r
result3$new_var_summary
```

```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  1.000   4.250   5.250   5.194   6.500   7.000 
```

Preguntar Mario por el CFA de esto: es por cada subdimension o toda la dimension?

5.1.3 Complementary class diferenciation toward poor women and men

```r
describe_kable(db_proc, c("cc_pw_1", "cc_pw_2", "cc_pw_3", "cc_pw_4", "cc_pm_1", "cc_p
```

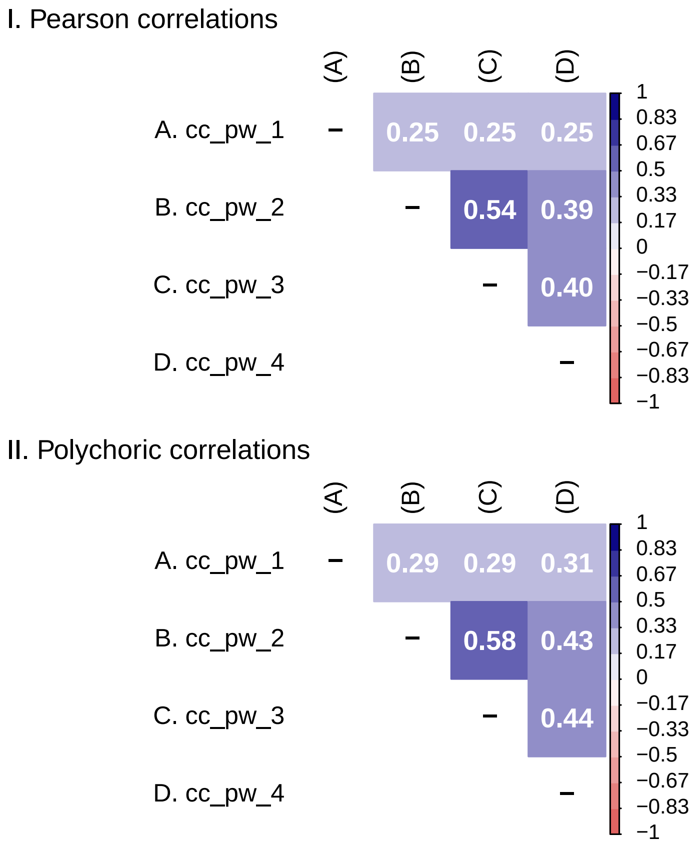
Table 5: Descriptive statistics of Complementary class diferenciation toward poor women and men

	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se
cc_pw_1	1	4209	5.353	1.585	6	5.536	1.483	1	7	6	-0.711	-0.236	0.024
cc_pw_2	2	4209	3.702	1.680	4	3.658	1.483	1	7	6	0.055	-0.498	0.026
cc_pw_3	3	4209	3.858	1.808	4	3.822	1.483	1	7	6	0.020	-0.792	0.028
cc_pw_4	4	4209	4.340	1.869	4	4.425	1.483	1	7	6	-0.307	-0.828	0.029
cc_pm_1	5	4209	4.874	1.676	5	4.993	1.483	1	7	6	-0.333	-0.702	0.026
cc_pm_2	6	4209	3.524	1.609	4	3.462	1.483	1	7	6	0.125	-0.411	0.025
cc_pm_3	7	4209	3.593	1.680	4	3.530	1.483	1	7	6	0.150	-0.560	0.026
cc_pm_4	8	4209	4.137	1.820	4	4.172	1.483	1	7	6	-0.136	-0.827	0.028

```r
# 1. Correlations ppw

# fit pearson and polychoric
res2 <- fit_correlations(db_proc, c("cc_pw_1", "cc_pw_2", "cc_pw_3", "cc_pw_4"))


res3 <- fit_correlations(db_proc, c("cc_pm_1", "cc_pm_2", "cc_pm_3", "cc_pm_4"))
```

```r
#Plot the matrix using corrplot

corr_plots(res2, db_proc, "SOGEDI")
```

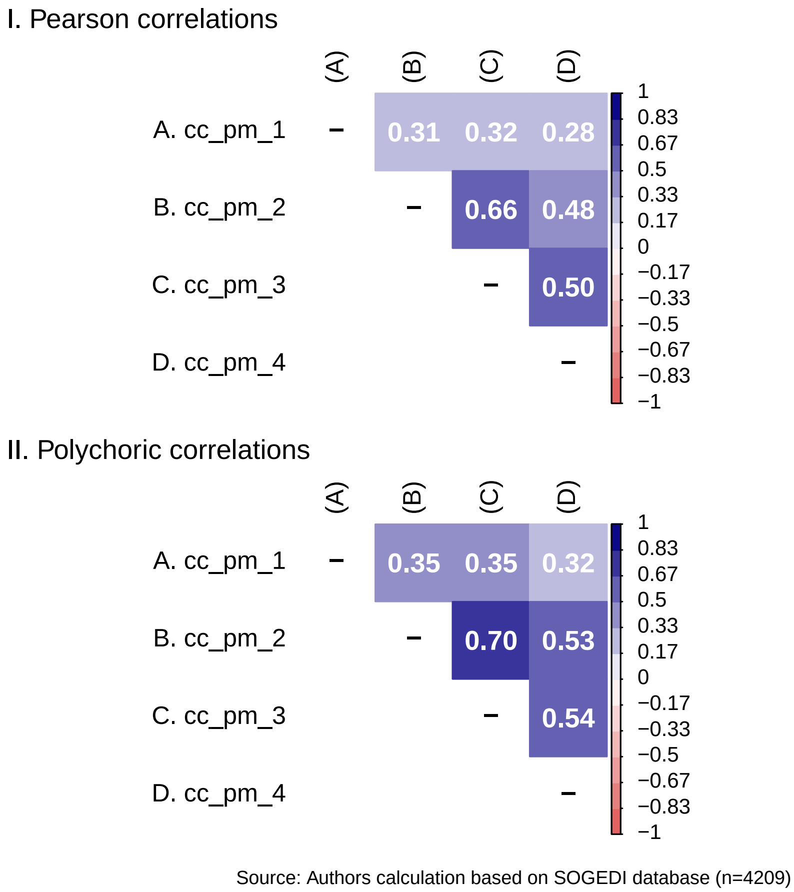
Figure 4: Correlation matrixes of Complementary class diferenciation toward poor women



Source: Authors calculation based on SOGEDI database (n=4209)

```
#Plot the matrix using corrplot

corr_plots(res3, db_proc, "SOGEDI")
```

Figure 5: Correlation matrixes of Complementary class diferenciation toward poor men




```
# 2. Alpha

mi_variable <- "cc_pw"
result2 <- alphas(db_proc, c("cc_pw_1", "cc_pw_2", "cc_pw_3", "cc_pw_4"), mi_variable)

result2$raw_alpha
```

```
[1] 0.6841424
```

```
result2$ord_alpha
```

```
[1] 0.7191139
```

```r
result2$new_var_summary
```

```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  1.000   3.500   4.250   4.313   5.000   7.000 
```

```r
# 2. Alpha

mi_variable <- "cc_pm"
result3 <- alphas(db_proc, c("cc_pm_1", "cc_pm_2", "cc_pm_3", "cc_pm_4"), mi_variable)

result3$raw_alpha
```

```
[1] 0.7443716
```

```r
result3$ord_alpha
```

```
[1] 0.7760468
```

```r
result3$new_var_summary
```

```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  1.000   3.250   4.000   4.032   4.750   7.000 
```

5.1.4 Hostile classism toward poor women and men

```r
describe_kable(db_proc, c("hc_pw_1","hc_pw_2","hc_pw_3","hc_pw_4", "hc_pm_1","hc_pm_2"
```

Table 6: Descriptive statistics of Hostile classism toward poor women and men

	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se
hc_pw_1	1	4209	2.474	1.600	2	2.256	1.483	1	7	6	0.871	-0.105	0.025
hc_pw_2	2	4209	2.929	1.862	3	2.714	2.965	1	7	6	0.610	-0.734	0.029

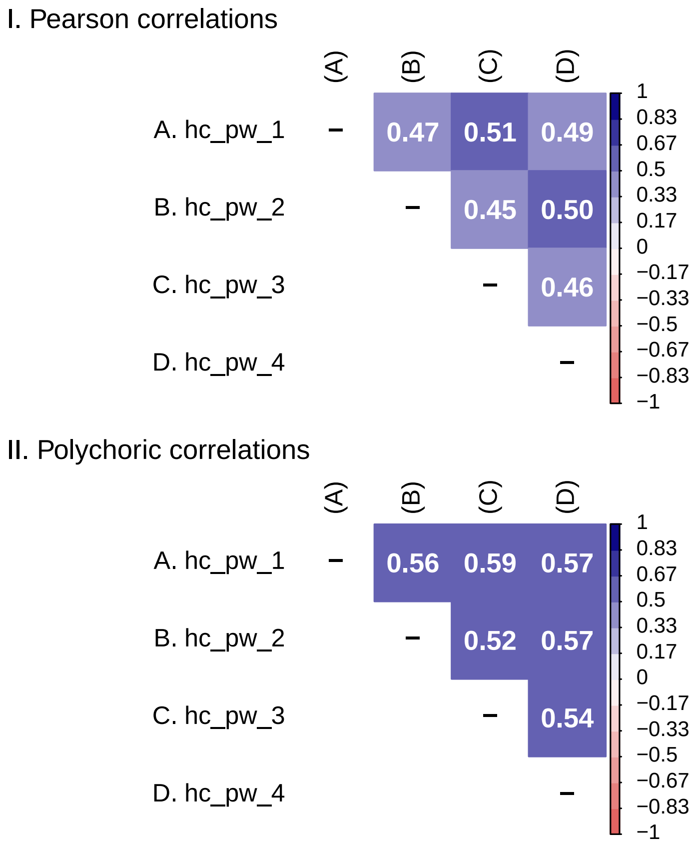
Table 6: Descriptive statistics of Hostile classism toward poor women and men

	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se
hc_pw_3	3	4209	2.616	1.697	2	2.400	1.483	1	7	6	0.771	-0.367	0.026
hc_pw_4	4	4209	3.189	1.817	3	3.039	2.965	1	7	6	0.372	-0.845	0.028
hc_pm_1	5	4209	3.064	1.731	3	2.917	1.483	1	7	6	0.408	-0.717	0.027
hc_pm_2	6	4209	3.229	1.804	3	3.084	1.483	1	7	6	0.373	-0.805	0.028
hc_pm_3	7	4209	3.118	1.730	3	2.978	1.483	1	7	6	0.373	-0.728	0.027
hc_pm_4	8	4209	3.618	1.831	4	3.547	1.483	1	7	6	0.116	-0.919	0.028

```r
# 1. Correlations ppw

# fit pearson and polychoric
res2 <- fit_correlations(db_proc, c("hc_pw_1","hc_pw_2","hc_pw_3","hc_pw_4"))

res3 <- fit_correlations(db_proc, c("hc_pm_1","hc_pm_2","hc_pm_3","hc_pm_4"))
```

```r
#Plot the matrix using corrplot

corr_plots(res2, db_proc, "SOGEDI")
```

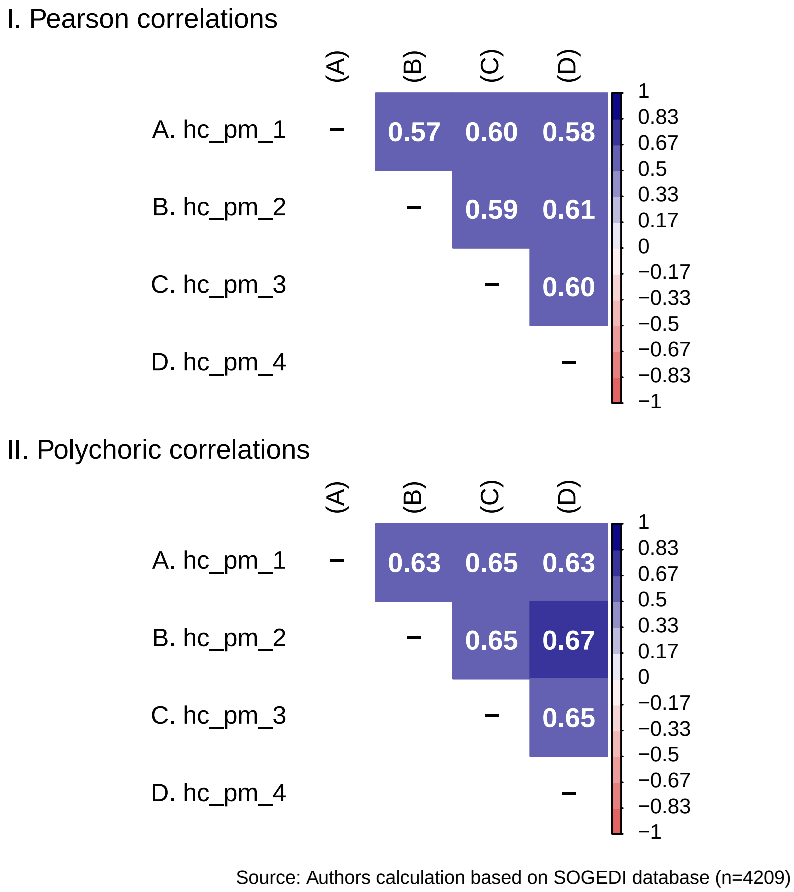
Figure 6: Correlation matrixes of Hostile classism toward poor women



Source: Authors calculation based on SOGEDI database (n=4209)

```
#Plot the matrix using corrplot

corr_plots(res3, db_proc, "SOGEDI")
```

Figure 7: Correlation matrixes of Hostile classism toward poor men




```r
# 2. Alpha

mi_variable <- "hc_pw"
result2 <- alphas(db_proc, c("hc_pw_1","hc_pw_2","hc_pw_3","hc_pw_4"), mi_variable)

result2$raw_alpha
```

```
[1] 0.7858148
```

```r
result2$ord_alpha
```

```
[1] 0.8336523
```

```r
result2$new_var_summary
```

```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  1.000   1.750   2.750   2.802   3.750   7.000 
```

```r
# 2. Alpha

mi_variable <- "hc_pm"
result3 <- alphas(db_proc, c("hc_pm_1","hc_pm_2","hc_pm_3","hc_pm_4"), mi_variable)

result3$raw_alpha
```

```
[1] 0.8526135
```

```r
result3$ord_alpha
```

```
[1] 0.8796202
```

```r
result3$new_var_summary
```

```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  1.000   2.000   3.250   3.257   4.250   7.000 
```