

# Experience exceeds awareness of anthropogenic climate change in Greenland

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## Supplementary Information: Experience Exceeds Awareness of Anthropogenic Climate Change in Greenland

|                         | svy:logit EXP ~<br>age_group + sex<br>+ culture | svy:logit EXP ~<br>age_group + sex +<br>culture + region | svy:logit EXP ~<br>age_group + sex + culture<br>+ region + survey | svy:logit EXP ~ full<br>model + cultural<br>subfactors | svy:logit EXP ~ full model<br>+ cultural subfactors +<br>poli_lean | svy:logit EXP ~ full model +<br>cultural subfactors +<br>poli_lean + survey |
|-------------------------|-------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------|
| (Intercept)             | 0.77 (0.50, 1.19)                               | 0.69 (0.44, 1.07)+                                       | 0.78 (0.50, 1.21)                                                 | 0.63 (0.37, 1.07)+                                     | 0.83 (0.44, 1.54)                                                  | 0.93 (0.50, 1.75)                                                           |
| Age_Group30_39          | 1.58 (1.07, 2.32)*                              | 1.61 (1.10, 2.38)*                                       | 1.62 (1.10, 2.39)*                                                | 1.63 (1.10, 2.42)*                                     | 1.59 (1.07, 2.36)*                                                 | 1.59 (1.07, 2.37)*                                                          |
| Age_Group40_49          | 2.05 (1.33, 3.15)**                             | 2.09 (1.36, 3.22)***                                     | 2.11 (1.37, 3.26)***                                              | 2.36 (1.50, 3.72)***                                   | 2.23 (1.41, 3.53)***                                               | 2.27 (1.43, 3.60)***                                                        |
| Age_Group50_64          | 2.85 (1.97, 4.14)***                            | 2.83 (1.95, 4.11)***                                     | 2.84 (1.95, 4.13)***                                              | 2.80 (1.93, 4.07)***                                   | 2.60 (1.77, 3.82)***                                               | 2.62 (1.78, 3.86)***                                                        |
| Age_Group65_Over        | 2.81 (1.66, 4.76)***                            | 2.77 (1.62, 4.73)***                                     | 2.77 (1.62, 4.72)***                                              | 2.82 (1.66, 4.79)***                                   | 2.67 (1.57, 4.55)***                                               | 2.68 (1.58, 4.55)***                                                        |
| Gender_GroupW           | 1.11 (0.84, 1.47)                               | 1.10 (0.83, 1.46)                                        | 1.10 (0.83, 1.46)                                                 | 1.04 (0.77, 1.39)                                      | 1.02 (0.76, 1.37)                                                  | 1.03 (0.77, 1.38)                                                           |
| culture_levelmed_low    | 2.81 (1.88, 4.18)***                            | 2.64 (1.76, 3.95)***                                     | 2.54 (1.69, 3.81)***                                              |                                                        |                                                                    |                                                                             |
| culture_levelmed_high   | 2.94 (1.93, 4.50)***                            | 2.63 (1.70, 4.06)***                                     | 2.53 (1.64, 3.90)***                                              |                                                        |                                                                    |                                                                             |
| culture_levelhigh       | 3.21 (1.97, 5.22)***                            | 2.74 (1.64, 4.59)***                                     | 2.73 (1.63, 4.55)***                                              |                                                        |                                                                    |                                                                             |
| RegionAvannaata         |                                                 | 1.32 (0.90, 1.94)                                        | 1.31 (0.89, 1.93)                                                 | 1.47 (0.99, 2.19)+                                     | 1.46 (0.97, 2.19)+                                                 | 1.44 (0.96, 2.16)+                                                          |
| RegionEast Sermersooq   |                                                 | 1.63 (0.84, 3.16)                                        | 1.63 (0.84, 3.16)                                                 | 1.93 (0.97, 3.83)+                                     | 1.95 (0.98, 3.88)+                                                 | 1.95 (0.97, 3.89)+                                                          |
| RegionKujalleq          |                                                 | 1.66 (0.99, 2.78)+                                       | 1.67 (0.99, 2.79)+                                                | 1.66 (1.00, 2.78)+                                     | 1.63 (0.97, 2.75)+                                                 | 1.65 (0.97, 2.78)+                                                          |
| RegionQeqertalik        |                                                 | 1.71 (1.05, 2.79)*                                       | 1.71 (1.05, 2.79)*                                                | 1.87 (1.15, 3.05)*                                     | 1.86 (1.14, 3.02)*                                                 | 1.85 (1.14, 3.02)*                                                          |
| RegionQeqqata           |                                                 | 1.05 (0.70, 1.56)                                        | 1.05 (0.70, 1.56)                                                 | 1.11 (0.74, 1.66)                                      | 1.09 (0.73, 1.65)                                                  | 1.09 (0.73, 1.65)                                                           |
| survey2_GPS             |                                                 |                                                          | 0.83 (0.63, 1.09)                                                 |                                                        |                                                                    | 0.82 (0.62, 1.09)                                                           |
| Town_Settlement1        |                                                 |                                                          |                                                                   | 1.05 (0.69, 1.59)                                      | 1.01 (0.66, 1.54)                                                  | 1.01 (0.67, 1.54)                                                           |
| postpri_education1      |                                                 |                                                          |                                                                   | 1.30 (0.96, 1.77)+                                     | 1.33 (0.97, 1.81)+                                                 | 1.29 (0.94, 1.77)                                                           |
| GL_identity1            |                                                 |                                                          |                                                                   | 2.26 (1.51, 3.37)***                                   | 2.13 (1.43, 3.18)***                                               | 2.08 (1.40, 3.09)***                                                        |
| subsistence_occupation1 |                                                 |                                                          |                                                                   | 1.39 (0.81, 2.38)                                      | 1.41 (0.83, 2.41)                                                  | 1.47 (0.85, 2.52)                                                           |
| polAtassut              |                                                 |                                                          |                                                                   |                                                        | 0.81 (0.39, 1.70)                                                  | 0.82 (0.39, 1.73)                                                           |
| polDemokraatit          |                                                 |                                                          |                                                                   |                                                        | 0.73 (0.42, 1.25)                                                  | 0.76 (0.44, 1.31)                                                           |
| polINA                  |                                                 |                                                          |                                                                   |                                                        | 0.72 (0.49, 1.08)                                                  | 0.72 (0.48, 1.07)                                                           |
| polOther                |                                                 |                                                          |                                                                   |                                                        | 0.55 (0.24, 1.30)                                                  | 0.58 (0.25, 1.37)                                                           |
| polPartii Naleraq       |                                                 |                                                          |                                                                   |                                                        | 1.01 (0.57, 1.82)                                                  | 1.02 (0.57, 1.83)                                                           |
| polSiunmut              |                                                 |                                                          |                                                                   |                                                        | 0.97 (0.60, 1.55)                                                  | 0.97 (0.61, 1.56)                                                           |
| AIC                     | 1565.4                                          | 1566.1                                                   | 1566.4                                                            | 1495.8                                                 | 1503.6                                                             | 1503.9                                                                      |
| BIC                     | 1612.5                                          | 1638.4                                                   | 1643.7                                                            | 1573.1                                                 | 1610.9                                                             | 1616.1                                                                      |

+ p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

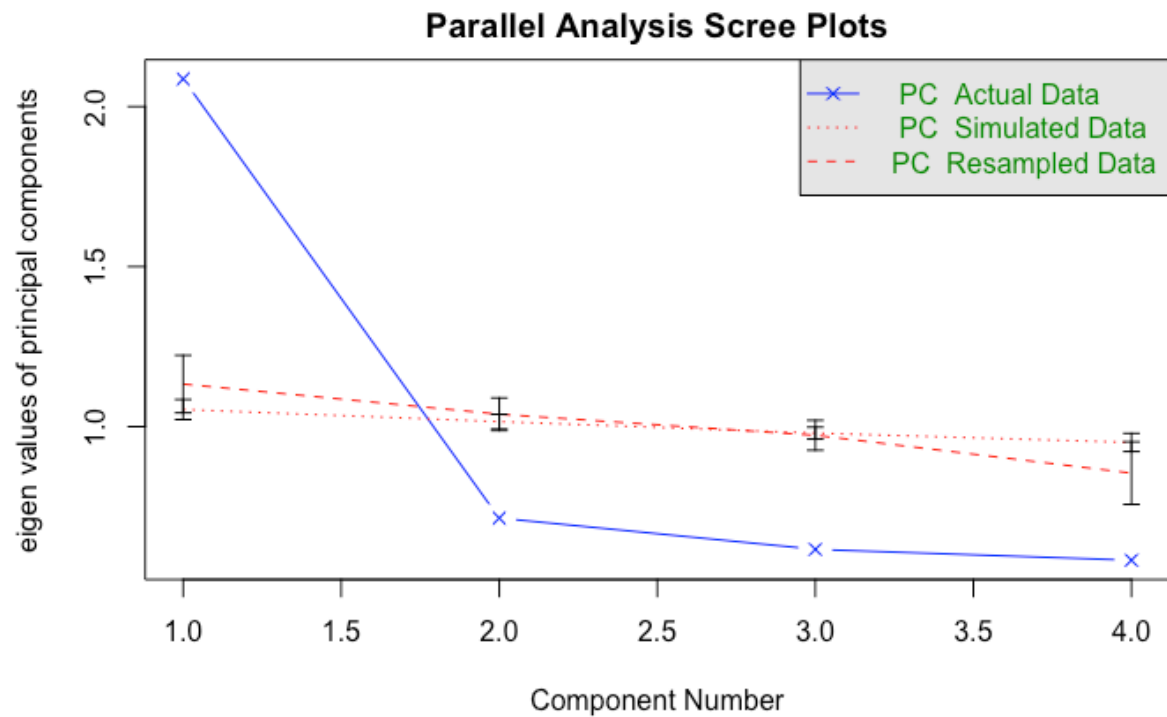
### SI Table 1. Personal Experience of Climate Change Weighted Logit Regression Tables.

Inuit cultural identity, sociodemographic and geographic predictors of “Personal Experience of Climate Change” operationalized as the dichotomous variable labelled “Exp”. Odds ratios from weighted quasi-binomial logit regressions. Confidence intervals (95%) shown in parentheses. P values were computed using two-sided t tests.

|                         | svy:logit<br>climatecause ~<br>age_group + sex +<br>culture | svy:logit<br>climatecause ~<br>age_group + sex +<br>culture + region | svy:logit climatecause ~<br>age_group + sex +<br>culture + region + survey | svy:logit<br>climatecause ~ full<br>model + cultural<br>subfactors | svy:logit climatecause ~<br>full model + cultural<br>subfactors + poli_lean | svy:logit climatecause ~ full<br>model + cultural subfactors +<br>poli_lean + survey |
|-------------------------|-------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| (Intercept)             | 1.19 (0.78, 1.81)                                           | 1.44 (0.93, 2.23)+                                                   | 1.47 (0.96, 2.26)+                                                         | 0.81 (0.51, 1.31)                                                  | 1.19 (0.70, 2.03)                                                           | 1.19 (0.70, 2.02)                                                                    |
| Age_Group30_39          | 1.31 (0.93, 1.85)                                           | 1.28 (0.90, 1.81)                                                    | 1.28 (0.90, 1.81)                                                          | 1.18 (0.83, 1.69)                                                  | 1.14 (0.79, 1.63)                                                           | 1.14 (0.79, 1.63)                                                                    |
| Age_Group40_49          | 1.15 (0.79, 1.68)                                           | 1.15 (0.79, 1.68)                                                    | 1.15 (0.79, 1.68)                                                          | 1.09 (0.74, 1.60)                                                  | 0.97 (0.66, 1.44)                                                           | 0.97 (0.66, 1.44)                                                                    |
| Age_Group50_64          | 1.80 (1.32, 2.47)***                                        | 1.86 (1.35, 2.56)***                                                 | 1.86 (1.35, 2.56)***                                                       | 1.79 (1.29, 2.47)***                                               | 1.62 (1.16, 2.25)**                                                         | 1.62 (1.16, 2.25)**                                                                  |
| Age_Group65_Over        | 1.59 (1.07, 2.37)*                                          | 1.62 (1.09, 2.41)*                                                   | 1.62 (1.09, 2.41)*                                                         | 1.67 (1.13, 2.48)*                                                 | 1.68 (1.13, 2.51)*                                                          | 1.68 (1.13, 2.51)*                                                                   |
| Gender_GroupW           | 0.89 (0.71, 1.11)                                           | 0.91 (0.73, 1.14)                                                    | 0.91 (0.73, 1.14)                                                          | 0.84 (0.67, 1.06)                                                  | 0.83 (0.66, 1.05)                                                           | 0.83 (0.66, 1.05)                                                                    |
| culture_levelmed_low    | 0.87 (0.60, 1.26)                                           | 0.96 (0.66, 1.40)                                                    | 0.95 (0.65, 1.40)                                                          |                                                                    |                                                                             |                                                                                      |
| culture_levelmed_high   | 0.54 (0.36, 0.79)**                                         | 0.64 (0.43, 0.96)*                                                   | 0.64 (0.43, 0.96)*                                                         |                                                                    |                                                                             |                                                                                      |
| culture_levelhigh       | 0.32 (0.21, 0.49)***                                        | 0.42 (0.27, 0.67)***                                                 | 0.42 (0.27, 0.66)***                                                       |                                                                    |                                                                             |                                                                                      |
| RegionAvannaata         |                                                             | 0.56 (0.41, 0.77)***                                                 | 0.56 (0.41, 0.77)***                                                       | 0.59 (0.42, 0.82)**                                                | 0.61 (0.44, 0.86)**                                                         | 0.62 (0.44, 0.86)**                                                                  |
| RegionEast Sermersooq   |                                                             | 0.35 (0.20, 0.62)***                                                 | 0.35 (0.20, 0.61)***                                                       | 0.40 (0.23, 0.69)**                                                | 0.41 (0.23, 0.71)**                                                         | 0.41 (0.23, 0.71)**                                                                  |
| RegionKujalleq          |                                                             | 0.67 (0.46, 0.99)*                                                   | 0.67 (0.46, 0.99)*                                                         | 0.67 (0.45, 0.98)*                                                 | 0.71 (0.48, 1.04)+                                                          | 0.71 (0.48, 1.04)+                                                                   |
| RegionQeqertalik        |                                                             | 0.55 (0.38, 0.79)**                                                  | 0.55 (0.38, 0.79)**                                                        | 0.59 (0.40, 0.86)**                                                | 0.58 (0.39, 0.84)**                                                         | 0.58 (0.39, 0.84)**                                                                  |
| RegionQeqqata           |                                                             | 0.72 (0.51, 1.00)+                                                   | 0.72 (0.51, 1.00)+                                                         | 0.74 (0.52, 1.04)+                                                 | 0.76 (0.53, 1.07)                                                           | 0.76 (0.53, 1.07)                                                                    |
| survey2_GPS             |                                                             |                                                                      | 0.97 (0.78, 1.22)                                                          |                                                                    |                                                                             | 1.01 (0.80, 1.28)                                                                    |
| Town_Settlement1        |                                                             |                                                                      |                                                                            | 0.92 (0.67, 1.26)                                                  | 0.94 (0.68, 1.29)                                                           | 0.94 (0.68, 1.29)                                                                    |
| postpri_education1      |                                                             |                                                                      |                                                                            | 1.76 (1.38, 2.25)***                                               | 1.76 (1.37, 2.25)***                                                        | 1.76 (1.37, 2.26)***                                                                 |
| GL_identity1            |                                                             |                                                                      |                                                                            | 1.08 (0.75, 1.56)                                                  | 1.11 (0.76, 1.61)                                                           | 1.11 (0.76, 1.61)                                                                    |
| subsistence_occupation1 |                                                             |                                                                      |                                                                            | 0.52 (0.35, 0.78)**                                                | 0.52 (0.35, 0.78)**                                                         | 0.52 (0.35, 0.78)**                                                                  |
| polAtassut              |                                                             |                                                                      |                                                                            |                                                                    | 0.66 (0.37, 1.19)                                                           | 0.66 (0.37, 1.19)                                                                    |
| polDemokraatit          |                                                             |                                                                      |                                                                            |                                                                    | 0.62 (0.40, 0.96)*                                                          | 0.62 (0.40, 0.96)*                                                                   |
| polNA                   |                                                             |                                                                      |                                                                            |                                                                    | 0.60 (0.44, 0.82)**                                                         | 0.60 (0.44, 0.82)**                                                                  |
| polOther                |                                                             |                                                                      |                                                                            |                                                                    | 1.22 (0.56, 2.66)                                                           | 1.22 (0.56, 2.66)                                                                    |
| polPartii Naleraq       |                                                             |                                                                      |                                                                            |                                                                    | 0.82 (0.52, 1.28)                                                           | 0.82 (0.52, 1.28)                                                                    |
| polSiumut               |                                                             |                                                                      |                                                                            |                                                                    | 0.55 (0.39, 0.77)***                                                        | 0.54 (0.39, 0.77)***                                                                 |
| AIC                     | 2091.3                                                      | 2074.4                                                               | 2076.6                                                                     | 1984.4                                                             | 1978.4                                                                      | 1980.7                                                                               |
| BIC                     | 2138.9                                                      | 2147.5                                                               | 2154.8                                                                     | 2063.3                                                             | 2087.8                                                                      | 2095.1                                                                               |

+ p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

**SI Table 2.** Awareness of Anthropogenic Climate Change Weighted Logit Regression Tables: Primary and Secondary Specifications. Inuit cultural identity, sociodemographic and geographic predictors of “Awareness of Anthropogenic Climate Change” operationalized as the dichotomous variable labelled “AACC”. Odds ratios from weighted quasi-binomial logit regressions. Confidence intervals (95%) shown in parentheses. P values were computed using two-sided t tests.



**SI Fig. 1 Parallel Analysis Scree Plots.** Parallel analysis plot depicts the eigenvalues of the first and successive principal components derived from our factor analysis (blue line). Sharp breaks are suggestive of the appropriate number of factors to extract. The finely dotted red line depicts principal components derived from a randomly simulated data matrix of the same size as our original data ( $n=1585$ ). Similarly, the dashed red line shows principal components of randomly resampled data. Error bars depict 95% CIs.

### SI Theoretical Implications

Interpreted through Construal Level Theory – a psychosocial theory that describes how human perceptions and judgements of the world depend on the psychological distance between an individual and an object or event – our results highlight that despite the proximal distance to climate change's effects for Inuit in Kalaallit Nunaat, the causes of climate change may remain socially and spatially distant<sup>71</sup>. Indeed, Kalaallit have long-lived amid climatic flux, inhabiting a world of rapidly shifting weather and cryospheric baselines. Additionally, the mismatch between the spatially close effects and socially remote causes of climate change – with carbon-intensive activities largely clustered in more industrial areas in other countries – may further increase psychological distance.