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## Disease and prejudice: risk attribution to ethno-racial groups over the course of a pandemic

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## Online Appendix

### A1. Coding Approach for *Ethno-Racial*

The category *ethno-racial* included four subcategories *Chinese*, *Europeans*, *Immigrants*, and *Other ethno-racial labels*. In choosing which responses to include in those subcategories, we made four key decisions:

1. **Including people:** If responses referred to people only by their descent or place of origin, we counted these as ethno-racial references. This would include responses such as “Chinese”, “Italians”, “Africans”, “Arabs” or “foreigners”.
2. **Including country:** If respondents referred to a country or region as a whole, we counted this as an ethno-racial reference. This would include responses such as “Spain”, “Eastern Europe” or “Africa”.
3. **Excluding leaders:** If respondents only referred to scientists or political leaders from a certain country, we did not count these as ethno-racial references. This would include responses such as “Chinese scientists” or “Austrian government”. Note that these responses count towards the separate main category of “leaders” but that we considered them too narrow to be categorized as ethno-racial.
4. **Excluding place:** If responses referred to a country or region as a place, e.g. as a destination of travel, we did not count them as ethno-racial references. This would include responses such as “travelers from Wuhan” or “ski tourists in Austria”. Note that these responses count to the main category of traveler. Yet, we cannot meaningfully infer whether respondents meant Germans returning from their travels or whether respondents meant foreigners traveling to Germany. Thus, we stick with the more conservative assumption to exclude places from the ethno-racial category.

Below we provide examples for the kind of responses included in the respective subcategories.

\*We are cognizant that some of the responses listed here are racist. We chose to display those as they were written down to illustrate the difference between seemingly neutral and explicitly racist answers.

|                                                                                |                                      |                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ethno-racial subcategory</b><br><b>Chinese</b><br>(n=636)                   | <b>China_people</b><br>(n= 426)      | Chinese                                                                                                                                                                                                                                                                             |
|                                                                                | <b>China_country</b><br>(n= 210)     | China, Wuhan<br><br>*If people only wrote "China", we placed it in this subcategory. If the response was "China ([they] eat everything)", we counted it as China_people. If respondents wrote "China due to its late notice", we considered this as a reference to Chinese leaders. |
| <b>Not included in ethno-racial subcategory</b><br>(n=135)                     | <b>China_leader</b><br>(n= 60)       | Chinese government, laboratories in China, Chinese scientists                                                                                                                                                                                                                       |
|                                                                                | <b>China_place</b><br>(n= 75)        | travelers from China, Visitors of the market in Wuhan                                                                                                                                                                                                                               |
| <b>Ethno-racial subcategory</b><br><b>Europeans</b><br>(n=118)                 | <b>EU_people</b><br>(n= 42)          | Italians, Spaniards, Austrians, South Tyroleans                                                                                                                                                                                                                                     |
|                                                                                | <b>EU_country</b><br>(n= 76)         | Italy, Austria, Ischgl, Tyrol                                                                                                                                                                                                                                                       |
| <b>Not included in ethno-racial subcategory</b><br>(n=197)                     | <b>EU_leader</b><br>(n= 13)          | Government of Austria                                                                                                                                                                                                                                                               |
|                                                                                | <b>EU_place</b><br>(n= 184)          | Ski tourists in Ischgl, party people in Ischgl                                                                                                                                                                                                                                      |
| <b>Ethno-racial subcategory</b><br><b>Other ethno-racial labels</b><br>(n=171) | <b>Other_asian</b><br>(n= 60)        | Asians, Japanese, Japs* [ <i>Japsen*</i> ], Vietnamese                                                                                                                                                                                                                              |
|                                                                                | <b>Other_people</b><br>(n= 35)       | Russians, Rumanians, Bulgarians, Turks, Africans, Eastern Europeans                                                                                                                                                                                                                 |
|                                                                                | <b>Other_country</b><br>(n= 33)      | USA, Africa, Eastern Europe, Asia                                                                                                                                                                                                                                                   |
|                                                                                | <b>Other_other</b><br>(n= 43)        | Arabs, Nigger* [ <i>Neger*</i> ], Muslims [ <i>Moslems</i> ], Roma, other cultures                                                                                                                                                                                                  |
| <b>Not included in ethno-racial subcategory</b>                                | <b>Other_place</b><br>(n= 108)       | Persons who work abroad, tourists from distant countries, travelers from Asia                                                                                                                                                                                                       |
| <b>Ethno-racial subcategory</b><br><b>Immigrants</b><br>(n=605)                | <b>Foreign_migrant</b><br>(n= 144)   | Migrants, young migrants [ <i>junge Migranten</i> ], immigrants [ <i>Zuwanderer</i> ]                                                                                                                                                                                               |
|                                                                                | <b>Foreign_foreigner</b><br>(n= 188) | Foreigners [ <i>Ausländer</i> ], foreign fellow citizens [ <i>ausländische Mitbürger</i> ], foreign adolescents                                                                                                                                                                     |
|                                                                                | <b>Foreign_refugee</b><br>(n= 176)   | Asylum seekers [ <i>Asylanten, Asylbewerber</i> ], refugees                                                                                                                                                                                                                         |
|                                                                                | <b>Foreign_worker</b><br>(n= 53)     | Guest workers [ <i>Gastarbeiter</i> ], foreign workers [ <i>Fremdarbeiter</i> ], seasonal workers                                                                                                                                                                                   |

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|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Foreign_other</b><br>(n= 44) | Migrants who don't master the German language [ <i>Migranten, die der deutschen Sprache nicht mächtig sind</i> ], derogatory term for immigrants of Southern European and Arab origin* [ <i>Kanaken*</i> ], large foreign/Turkish/Lebanese families [ <i>ausländische, türkische, libanesische Großfamilien</i> ], clans [ <i>Clans</i> ], massive weddings of Turkish families [ <i>Großhochzeiten von türkischen Familien</i> ] |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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## A2. Sample Representativeness

| Variable                          | Germany |        | Full Sample |      |     |     | Regression Sample |      |       |     |     |
|-----------------------------------|---------|--------|-------------|------|-----|-----|-------------------|------|-------|-----|-----|
|                                   | Mean    | N      | Mean        | SD   | Min | Max | N                 | Mean | SD    | Min | Max |
| <b>Sociodemographics</b>          |         |        |             |      |     |     |                   |      |       |     |     |
| Female <sub>i</sub>               | 0.51    | 10,346 | 0.50        | 0.50 | 0   | 1   | 7,902             | 0.50 | 0.50  | 0   | 1   |
| Age <sub>i</sub>                  | 44.50   | 10,246 | 45.5        | 14.6 | 18  | 100 | 7,902             | 45.9 | 14.58 | 18  | 100 |
| Education <sub>i</sub>            | 2.89    | 10,346 | 3.07        | 0.84 | 1   | 4   | 7,902             | 3.12 | 0.83  | 1   | 4   |
| - No degree                       | 0.08    |        | 0.02        |      |     |     |                   | 0.01 |       |     |     |
| - 9 years of schooling            | 0.29    |        | 0.27        |      |     |     |                   | 0.25 |       |     |     |
| - 10 years of schooling           | 0.30    |        | 0.34        |      |     |     |                   | 0.34 |       |     |     |
| - Highschool degree               | 0.34    |        | 0.37        |      |     |     |                   | 0.40 |       |     |     |
| Migration background <sub>i</sub> | 0.26    | 10,346 | 0.17        | 0.37 | 0   | 1   | 7,902             | 0.16 | 0.37  | 0   | 1   |
| Household size <sub>i</sub>       | 1.99    | 10,326 | 2.28        | 1.22 | 1   | 20  | 7,902             | 2.28 | 1.20  | 1   | 20  |
| <b>Party Preference</b>           |         |        |             |      |     |     |                   |      |       |     |     |
| AFD <sub>i</sub>                  | 0.10    | 10,323 | 0.10        | 0.30 | 0   | 1   | 7,902             | 0.10 | 0.30  | 0   | 1   |
| CDU/CSU <sub>i</sub>              | 0.37    | 10,323 | 0.21        | 0.41 | 0   | 1   | 7,902             | 0.22 | 0.41  | 0   | 1   |
| SPD <sub>i</sub>                  | 0.15    | 10,323 | 0.10        | 0.30 | 0   | 1   | 7,902             | 0.10 | 0.30  | 0   | 1   |
| FDP <sub>i</sub>                  | 0.06    | 10,323 | 0.05        | 0.22 | 0   | 1   | 7,902             | 0.05 | 0.22  | 0   | 1   |
| Left party <sub>i</sub>           | 0.07    | 10,323 | 0.09        | 0.28 | 0   | 1   | 7,902             | 0.09 | 0.28  | 0   | 1   |
| Greens <sub>i</sub>               | 0.19    | 10,323 | 0.14        | 0.35 | 0   | 1   | 7,902             | 0.15 | 0.35  | 0   | 1   |
| Other <sub>i</sub>                | -       | 10,323 | 0.06        | 0.23 | 0   | 1   | 7,902             | 0.06 | 0.23  | 0   | 1   |
| Undecided <sub>i</sub>            | -       | 10,323 | 0.16        | 0.36 | 0   | 1   | 7,902             | 0.14 | 0.36  | 0   | 1   |
| Nonvoter <sub>i</sub>             | -       | 10,323 | 0.10        | 0.30 | 0   | 1   | 7,902             | 0.08 | 0.30  | 0   | 1   |

Source: WZB Corona Survey (2021); statista (2019); infratest-dimap (2020, averaged over the survey period)

### A3. Descriptive Statistics

|                                  | Variable                                  | N     | Mean  | SD    | Min | Max    |
|----------------------------------|-------------------------------------------|-------|-------|-------|-----|--------|
| <b>Outcome</b>                   | Ethno-racial group mentioned              | 7,902 | 0.17  | 0.38  | 0   | 1      |
| <b>Economic Threat</b>           | Economic loss <sub>i</sub>                | 7,902 | 0.18  | 0.38  | 0   | 1      |
|                                  | Perceived economic condition <sub>i</sub> | 7,902 | 2.60  | 0.90  | 1   | 5      |
|                                  | Econ. condition worsened <sub>i</sub>     | 7,902 | 0.28  | 0.45  | 0   | 1      |
| <b>Disease Threat</b>            | Risk group <sub>i</sub>                   | 7,902 | 0.42  | 0.49  | 0   | 1      |
|                                  | Worried about self <sub>i</sub>           | 7,902 | 2.69  | 1.13  | 1   | 5      |
|                                  | Worried about family <sub>i</sub>         | 7,902 | 3.16  | 1.15  | 1   | 5      |
| <b>Disease Proximity</b>         | 7-Day incidence                           | 7,902 | 36.96 | 59.61 | 0   | 602.14 |
|                                  | Personal proximity <sub>i</sub>           | 7,902 | 0.04  | 0.10  | 0   | 1      |
| <b>Party Preference</b>          | AfD <sub>i</sub>                          | 7,902 | 0.10  | 0.30  | 0   | 1      |
|                                  | CDU/CSU <sub>i</sub>                      | 7,902 | 0.22  | 0.41  | 0   | 1      |
|                                  | SPD <sub>i</sub>                          | 7,902 | 0.10  | 0.30  | 0   | 1      |
|                                  | FDP <sub>i</sub>                          | 7,902 | 0.05  | 0.22  | 0   | 1      |
|                                  | Left party <sub>i</sub>                   | 7,902 | 0.09  | 0.28  | 0   | 1      |
|                                  | Greens <sub>i</sub>                       | 7,902 | 0.15  | 0.36  | 0   | 1      |
|                                  | Other <sub>i</sub>                        | 7,902 | 0.06  | 0.24  | 0   | 1      |
|                                  | Undecided <sub>i</sub>                    | 7,902 | 0.14  | 0.35  | 0   | 1      |
|                                  | Nonvoter <sub>i</sub>                     | 7,902 | 0.08  | 0.28  | 0   | 1      |
|                                  | Female <sub>i</sub>                       | 7,902 | 0.50  | 0.50  | 0   | 1      |
| <b>Sociodemographic Controls</b> | Age <sub>i</sub>                          | 7,902 | 45.97 | 14.58 | 18  | 100    |
|                                  | Education <sub>i</sub>                    | 7,902 | 3.12  | 0.83  | 1   | 4      |
|                                  | Migration background <sub>i</sub>         | 7,902 | 0.16  | 0.37  | 0   | 1      |
|                                  | Contact foreign population <sub>i</sub>   | 7,902 | 1.88  | 1.09  | 1   | 4      |
|                                  | Household size <sub>i</sub>               | 7,902 | 2.28  | 1.20  | 1   | 20     |

Source: WZB Corona Survey (2021)

## A4. Subsamples by Party Preference; Predictors of “Ethno-Racial” and “Traveler”

| Variable                               | Subsamples by Party Preference |                     | State & Wave Controls  |                       | State-Wave Controls    |                       |
|----------------------------------------|--------------------------------|---------------------|------------------------|-----------------------|------------------------|-----------------------|
|                                        | Non-AfD<br>(1)                 | AfD<br>(2)          | Ethno-Racial<br>(3)    | Travel<br>(4)         | Ethno-Racial<br>(5)    | Travel<br>(6)         |
| <b>Economic Threat</b>                 |                                |                     |                        |                       |                        |                       |
| Perceived econ. condition <sub>i</sub> | 0.0017<br>(0.0052)             | 0.0078<br>(0.0181)  | 0.0031<br>(0.0050)     | -0.0067<br>(0.0065)   | 0.0017<br>(0.0052)     | -0.0081<br>(0.0065)   |
| Econ. condition worsened <sub>i</sub>  | 0.0212**<br>(0.0106)           | -0.0063<br>(0.0403) | 0.0164<br>(0.0104)     | 0.0033<br>(0.0136)    | 0.0203*<br>(0.0109)    | 0.0047<br>(0.0137)    |
| Economic loss <sub>i</sub>             | 0.0142<br>(0.0119)             | -0.0499<br>(0.0467) | 0.0100<br>(0.0118)     | -0.0064<br>(0.0154)   | 0.0119<br>(0.0124)     | -0.0078<br>(0.0155)   |
| <b>Disease Threat</b>                  |                                |                     |                        |                       |                        |                       |
| Worried about self <sub>i</sub>        | 0.0182***<br>(0.0055)          | 0.0181<br>(0.0214)  | 0.0189***<br>(0.0054)  | -0.0096<br>(0.0069)   | 0.0189***<br>(0.0058)  | -0.0084<br>(0.0069)   |
| Worried about family <sub>i</sub>      | -0.0103*<br>(0.0053)           | 0.0013<br>(0.0199)  | -0.0087*<br>(0.0052)   | 0.0372***<br>(0.0065) | -0.0087<br>(0.0055)    | 0.0369***<br>(0.0066) |
| Risk group <sub>i</sub>                | -0.0122<br>(0.0105)            | -0.0178<br>(0.0385) | -0.0122<br>(0.0102)    | -0.0098<br>(0.0126)   | -0.0115<br>(0.0107)    | -0.0111<br>(0.0126)   |
| <b>Disease Proximity</b>               |                                |                     |                        |                       |                        |                       |
| 7-Day incidence <sub>c</sub>           | 0.0003*<br>(0.0001)            | -0.0007<br>(0.0007) | 0.0002<br>(0.0001)     | -0.0002<br>(0.0002)   | 0.0003<br>(0.0002)     | -0.0001<br>(0.0002)   |
| Personal proximity <sub>i</sub>        | -0.0519<br>(0.0476)            | -0.0008<br>(0.1676) | -0.0556<br>(0.0458)    | -0.0229<br>(0.0572)   | -0.0452<br>(0.0477)    | -0.0334<br>(0.0582)   |
| <b>Party Preference</b>                |                                |                     |                        |                       |                        |                       |
| AfD <sub>i</sub>                       |                                |                     | 0.1292***<br>(0.0173)  | -0.0202<br>(0.0264)   | 0.1318***<br>(0.0182)  | -0.0192<br>(0.0264)   |
| CDU/CSU <sub>i</sub>                   |                                |                     | -0.0075<br>(0.0170)    | 0.0651***<br>(0.0230) | -0.0069<br>(0.0176)    | 0.0605***<br>(0.0230) |
| SPD <sub>i</sub>                       |                                |                     | -0.0241<br>(0.0196)    | 0.0557**<br>(0.0259)  | -0.0296<br>(0.0204)    | 0.0540**<br>(0.0260)  |
| FDP <sub>i</sub>                       |                                |                     | 0.0386*<br>(0.0223)    | 0.0855***<br>(0.0302) | 0.0403*<br>(0.0233)    | 0.0852***<br>(0.0304) |
| Left party <sub>i</sub>                |                                |                     | -0.0452**<br>(0.0209)  | 0.0716***<br>(0.0266) | -0.0513**<br>(0.0216)  | 0.0726***<br>(0.0268) |
| Greens <sub>i</sub>                    |                                |                     | -0.0574***<br>(0.0191) | 0.0938***<br>(0.0240) | -0.0597***<br>(0.0197) | 0.0909***<br>(0.0240) |
| Other <sub>i</sub>                     |                                |                     | -0.0177<br>(0.0223)    | 0.0561**<br>(0.0290)  | -0.0202<br>(0.0230)    | 0.0463<br>(0.0290)    |
| Undecided <sub>i</sub>                 |                                |                     | -0.0117<br>(0.0181)    | 0.0917***<br>(0.0240) | -0.0185<br>(0.0186)    | 0.0858***<br>(0.0241) |
| <b>Controls</b>                        |                                |                     |                        |                       |                        |                       |
| Wave, state                            | Yes                            | Yes                 | Yes                    | Yes                   | No                     | No                    |
| State-wave                             | No                             | No                  | No                     | No                    | Yes                    | Yes                   |
| Socio-demographics                     | Yes                            | Yes                 | Yes                    | Yes                   | Yes                    | Yes                   |
| Observations                           | 7,091                          | 811                 | 7,902                  | 7,902                 | 7,574                  | 7,810                 |

WZB Corona Survey (2021); Logistic regression results; Coefficients show average marginal effects. The dependent variable in columns (1) and (2) is ethno-racial group naming for subsamples of non-AfD voters and AfD-voters. Columns (3) to (6) alternate between the naming of ethno-racial groups and travelers, where columns (3) and (4) contain state and wave controls and columns (5) and (6) contain state-wave controls. Socio-demographic controls, which are included in all specifications, compile gender, age, education, migration background, household size and frequency of contact with people living abroad. Robust standard errors in parentheses, \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$