

Supplement to:

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Supplementary Information

Supplementary Note 1. The COVID-19 Salience Treatment (Top Layer)

In each survey, we implemented a two-layer experiment. The top layer involved randomly exposing half of the respondents to a short text about the current state of COVID-19 (COVID-19 salience treatment), followed by a set of questions regarding how COVID-19 impacted the employment, earnings, and health of the respondents and their families, after which the respondents completed survey questions (see below). Respondents in the control group received the reminder and questions at the end of the survey.

The text in 2020 was: “The novel coronavirus, COVID-19, is a global pandemic. By August 3, 2020, worldwide over 18.3 million individuals have tested positive with COVID-19 and 694,235 have died. The United States is one of the hardest hit countries in terms of infections and mortality, with over 4.8 million infections and 158,495 deaths as of August 3. We would like to ask you a few questions about how the pandemic impacted your life.”

The text was slightly updated in 2022 to reflect the caseload as of July 2022. It read: “The novel coronavirus, COVID-19, is a global pandemic. As of July 31, 2022, worldwide over half a billion individuals have tested positive for COVID-19 and over six million have died. The United States is one of the hardest hit countries in terms of infections and mortality, with over 90 million infections and over 1 million deaths. We would like to ask you a few questions about how the pandemic impacted your life.”

In both years, the text was followed by a series of questions below.

- 1) Are you currently working for pay or profit?
- 2) At any time between March and July 2020 (or between March 2020 and July 2022 in the 2022 survey), were you doing any work for pay or profit?
- 3) At any time between March and July 2020 (or between March 2020 and July 2022 in the 2022 survey), did you telework or work at home for pay because of the coronavirus?
- 4) At any time between March and July 2020 (or between March 2020 and July 2022 in the 2022 survey), were you unable to work due to the coronavirus?
- 5) At any time between March and July 2020 (or between March 2020 and July 2022 in the 2022 survey), did the terms of your employment change?
- 6) At any time between March and July 2020 (or between March 2020 and July 2022 in the 2022 survey), was the employment of your immediate family member(s) affected by coronavirus?
- 7) At any time between March and July 2020 (or between March 2020 and July 2022 in the 2022 survey), did you receive pay from your employer for the hours you did not work?
- 8) At any time between March and July 2020 (or between March 2020 and July 2022 in the 2022 survey), did you receive any severance or unemployment benefits?
- 9) At any time between March and July 2020 (or between March 2020 and July 2022 in the 2022 survey), did you receive a check from the government under the COVID-19 stimulus package (the CARES Act)?
- 10) At any time between March and July 2020 (or between March 2020 and July 2022 in the 2022 survey), did you receive SNAP/food stamps benefits?
- 11) At any time between March and July 2020 (or between March 2020 and July 2022 in the 2022 survey), did the coronavirus pandemic prevent you from looking for work?
- 12) At any time between March and July 2020 (or between March 2020 and July 2022 in the 2022 survey), were you ever under shelter-in-place, stay-at-home, or safer-at-home orders?
- 13) Have you or do you know anyone who tested positive for COVID-19?
- 14) Do you know anyone who died from COVID-19? If so, what is your relationship with the deceased?

The main treatment condition increased the salience of the pandemic by priming the respondents to think about the pandemic and its impact on their lives. In effect, we activated and/or intensified respondents' consideration of the adverse impact of COVID-19 and measured the effect of that reminder on attitudes toward racial/ethnic minorities.

Supplementary Note 2. Roommate Vignette Experiment: Racial/Ethnic Treatment (Second Layer)

The second layer included two vignette experiments (identical in the two waves), each of which presented a hypothetical situation to examine prejudice and discriminatory intent in economic or social settings (racial/ethnic treatment). In the first vignette experiment, we investigated discrimination in the *social context* of a roommate search. The experiment was adapted from Gaddis and Ghoshal (2020).

The vignette asked respondents to imagine that they were looking for a roommate in “The Big City” and placing an ad on a popular website. Each respondent then read a hypothetical email response to their ad, in which the name of the room-seeker was randomized to signal a particular race/ethnicity (the vignette was otherwise identical).

The vignette read: “ Now, we would like you to imagine yourself in the following situation.

You have decided that you want to move to The Big City and have found full-time employment there. Unfortunately, rent costs are high and buying a new place right now is completely out of the question. You will have to live with a roommate -- you will each get your own bedroom and bathroom but you will still share common areas. You do not have any existing friends or connections in The Big City so your new roommate will have to be someone new to you. You place an ad on a popular website to find a new roommate.

You received the following email in response to your ad:

Hello,

I’m responding to your ad about a roommate. I’m a mid-twenties [male/female], a recent college graduate, and am employed full-time. I’d love to chat and meet you. Please let me know if you are still looking for a roommate.

Thanks!
[Name] ”

After reading the vignette and email response, each respondent was presented with six questions and asked to respond on a scale of 0 to 10. Two questions captured each respondent’s discriminatory intent and prejudice toward a given room-seeker: 1) “How likely are you to respond to this person?” (extremely unlikely to extremely likely) and 2) “How interested are you in living with this person?” (not at all interested to extremely interested). We also included four questions about the respondents’ views of the hypothetical room-seeker’s traits relating to responsibility, courteousness, financial stability, and cultural inclusion, which together tapped into racial stereotypes: 1) “How responsible do you think this person would be as a roommate?” (not at all responsible to extremely responsible), 2) “How courteous do you think this person would be as a roommate?” (not at all courteous to extremely courteous), 3) “How financially stable do you think this person would be as a roommate?” (not at all financially stable to extremely financially stable); and 4) “How culturally compatible do you think you would be with this person?” (not at all compatible to extremely compatible).

Each email response included a single randomized name to signal the race/ethnicity of the hypothetical room-seeker. The names were selected by examining population-based racial/ethnic naming patterns for first names using New York State birth record data and last names using US Census data. The names selected have been validated in previous studies based on survey experiments asking respondents about their racial/ethnic perceptions of the names (Gaddis 2017a, Gaddis 2017b, Gaddis 2019).

Arguably, some Asians (i.e., East Asians) may be more vulnerable to COVID-related discrimination than others (e.g., South Asians). Even within these Asian groups, foreign-born Asians may be more vulnerable than US-born Asians. We thus distinguished among multiple Asian groups: East and South Asian and within each group, US-born, and immigrants. We differentiated immigration status by first names, with Anglo first names signaling native-born status and ethnic first names signaling immigration status (Gaddis 2019). Note that while Asian last names usually sufficiently accurately convey a racial signal of their own,

Hispanic and Black last names often need to be strengthened with ethnic first names (Gaddis 2017a). We thus paired ethnic-sounding first names with ethnic last names to signal Black and Hispanic identities to reduce racial ambiguity. Overall, randomizing the ethnically-distinctive names in the vignette experiment provided us with a good opportunity to study racial discrimination while mitigating social desirability bias. Because we did not find systematic differences between immigrant and US-born Asians, we combined immigrants and native-born within each Asian group for the main analyses.

The names used in the roommate vignette experiment include: Matthew / Melany McGrath (White); Tyrone / Tyra Washington (Black); Fernando / Camila Vasquez (Hispanic); Michael / Mindy Patil (South Asian American); Aditya / Anjali Patel (South Asian Immigrant); Brian / Winnie Chen (East Asian American); and Peng / Jian Chen (East Asian Immigrant).

Note that we distinguished 5 main races and ethnicities (whites, blacks, Hispanics, East Asians, and South Asians). Because Asians have been especially vulnerable to COVID-based discrimination, we focused on attitudes toward Asians in the present study.

Supplementary Note 3. Coworker Vignette Experiment: Racial/Ethnic Treatment (Second Layer)

The second vignette experiment was designed to study discrimination in the *workplace*, adapted from Berdahl and Min (2012). Each survey respondent was presented with a vignette that described a hypothetical employee. The vignettes were identical in all respects except for the names of the hypothetical employees, which were randomized to signal particular ethnoracial groups. We used only male names to avoid differences in preferences on account of the gender of the coworker.

The vignette read: “ We are going to show you a few comments about an employee from his supervisor. Please read the comments carefully and answer the questions that follow.

[Name] is a proficient employee who perseveres until the task is done. He has a firm and assertive demeanor and takes initiatives on new ideas and projects. Mr. [Last name] is not afraid to express his opinion in meetings. His coworkers report that he is considerate of others’ opinions and fair in dealing with colleagues. ”

The names used in the coworker vignette experiment include: Matthew McGrath (White); Tyrone Washington (Black); Fernando Vasquez (Hispanic); Michael Patil (South Asian American); Aditya Patel (South Asian Immigrant); Brian Chen (East Asian American); and Peng Chen (East Asian Immigrant).

Upon reading the vignette, each respondent was asked to rank their preference for having the hypothetical individual as a colleague, staff member (subordinate), or supervisor on a scale from 0 to 10 (extremely prefer to not at all prefer). The order of the questions (colleague, subordinate, and boss) was randomized.

Our experiment pertains to workplace discrimination. Because workplace threats from COVID-19 and its consequences, whether economic and health-related, are more real for the working age population, we restricted the sample of our analysis to respondents aged 19–64 years.

Table S1. Sample respondent characteristics

Respondent characteristics	Roommate experiment sample				Coworker experiment sample			
	2020		2022		2020		2022	
	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment
	N=1,333	N=1,340	N=1,407	N=1,407	N=1,333	N=1,340	N=1,407	N=1,407
Age, mean (SD)	49.8 (17.4)	50.0 (17.6)	49.6 (17.6)	49.7 (17.9)	42.9 (13.7)	42.6 (13.5)	42.3 (13.9)	42.9 (14.1)
Female	54%	54%	53%	52%	53%	53%	53%	51%
Race/Ethnicity								
White	69%	65%	66%	67%	66%	62%	62%	63%
Black	13%	13%	12%	12%	14%	14%	14%	13%
Hispanic	15%	18%	15%	16%	17%	20%	17%	17%
Others	4%	4%	7%	5%	4%	4%	8%	7%
Family income								
Income<29999	23%	25%	27%	28%	24%	26%	28%	27%
30000-59999	29%	26%	25%	25%	27%	26%	23%	21%
Income>=60000	37%	37%	36%	37%	37%	38%	38%	41%
Prefer not to say	11%	12%	11%	10%	12%	11%	10%	11%
Marital status								
Single	49%	48%	50%	49%	51%	52%	56%	52%
Married/In union	51%	52%	50%	51%	49%	48%	44%	48%
Political Parties								
Ind/Others	34%	35%	39%	40%	37%	38%	41%	41%
Democrat	40%	37%	38%	37%	41%	38%	38%	39%
Republican	26%	27%	23%	23%	22%	24%	20%	20%
Region								
Northeast	17%	17%	18%	18%	19%	17%	18%	18%
Midwest	21%	21%	21%	22%	20%	23%	22%	23%
South	38%	39%	37%	37%	36%	38%	38%	38%
West	23%	23%	24%	23%	25%	22%	22%	22%

Table S2. Treatment effects of the roommate (Column 1-4) and coworker (Column 5-10) experiments in 2020 and 2022

	How likely to respond to room-seeker of a certain race/ethnicity		How interested in living with room-seeker of a certain race/ethnicity		Preference of having a coworker of a certain race/ethnicity as a colleague		Preference of having a coworker of a certain race/ethnicity as a supervisor		Preference of having a coworker of a certain race/ethnicity as a staff member	
	2020	2022	2020	2022	2020	2022	2020	2022	2020	2022
White name										
COVID Treatment	-0.22 (0.21)	-0.12 (0.19)	0.03 (0.22)	-0.13 (0.20)	-0.07 (0.19)	-0.15 (0.18)	-0.09 (0.20)	-0.10 (0.20)	-0.04 (0.21)	0.04 (0.19)
Constant	7.36*** (0.15)	7.49*** (0.14)	6.09*** (0.16)	6.50*** (0.14)	7.98*** (0.14)	7.97*** (0.13)	7.63*** (0.15)	7.63*** (0.14)	7.78*** (0.15)	7.89*** (0.13)
South Asian name										
COVID Treatment	-0.44*** (0.15)	-0.08 (0.14)	-0.39** (0.16)	0.02 (0.15)	-0.14 (0.14)	-0.08 (0.13)	-0.17 (0.14)	-0.06 (0.14)	-0.21 (0.14)	-0.07 (0.14)
Constant	7.53*** (0.11)	7.39*** (0.10)	6.42*** (0.11)	6.32*** (0.10)	7.92*** (0.10)	7.98*** (0.09)	7.64*** (0.10)	7.70*** (0.10)	7.92*** (0.10)	7.94*** (0.10)
East Asian name										
COVID Treatment	-0.51*** (0.15)	-0.26* (0.14)	-0.34** (0.15)	-0.11 (0.15)	-0.30** (0.14)	-0.03 (0.12)	-0.33** (0.14)	-0.10 (0.13)	-0.20 (0.14)	-0.07 (0.12)
Constant	7.85*** (0.10)	7.77*** (0.10)	6.76*** (0.11)	6.75*** (0.10)	8.09*** (0.10)	8.14*** (0.08)	7.88*** (0.10)	7.89*** (0.09)	8.11*** (0.10)	8.14*** (0.08)

Each cell is based on a different linear regression model in a specific year and indicates the effect of the COVID-19 salience treatment and the standard error (in parentheses). The samples excluded Asian respondents. The coworker experiment further excluded respondents aged 65 and older. * p<0.01 ** p<0.05 *** p<0.001

Table S3. Roommate (Column 1-2) and coworker (Column 3-5) experiment control group mean score differences from 2020 to 2022

	How likely to respond to room-seeker of a certain race/ethnicity	How interested in living with room-seeker of a certain race/ethnicity	Preference of having a coworker of a certain race/ethnicity as a colleague	Preference of having a coworker of a certain race/ethnicity as a supervisor	Preference of having a coworker of a certain race/ethnicity as a staff member
White name					
Mean Difference (2020-2022)	0.13 (0.20)	0.41** (0.20)	-0.01 (0.18)	0.00 (0.19)	0.11 (0.19)
South Asian name					
Mean Difference (2020-2022)	-0.14 (0.14)	-0.10 (0.14)	0.07 (0.13)	0.07 (0.14)	0.03 (0.13)
East Asian name					
Mean Difference (2020-2022)	-0.08 (0.14)	-0.01 (0.14)	0.05 (0.13)	0.01 (0.13)	0.03 (0.13)

Each column is based on a different linear regression model interacting year (2022 vs. 2020 [referent]) with name group variable (White as referent) and presents the marginal effect of year for the three groups. Standard errors are in parentheses. The samples include the respondents in the COVID control group and excluded Asian respondents. The coworker experiment further excluded respondents aged 65 and older. * p<0.01 ** p<0.05 *** p<0.001

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