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## Study 2

### Additional Analyses with Exploratory Variables

In Study 2, we included several exploratory variables. These items were justification of inequality and opinions about social and economic policies.

#### *Justification of Inequality*

Participants were asked to report whether they felt the high or low inequality was justified with three items on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*): 1) “People who are wealthy probably worked for what they have”, 2) “People deserve what they have”, and 3) “If people are not happy with what they have, they need to work harder” ( $\alpha = .83$ ).

#### *Policy Opinions*

Participants were asked to report their thoughts about social and economic policies with three items on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*): 1) “Social policies, such as job training or healthcare, that help traditionally marginalized groups”, 2) “Economic policies, such as cash assistance or food vouchers, that help traditionally marginalized groups”, and 3) “People working for what they have without government assistance” ( $\alpha = .63$ ).

Although we did not preregister any analyses with these items, we investigated whether these items correlated with the dependent variables of interest reported in the manuscript. See Table S1. Both measures are not influenced by condition.

**Table S1***Correlation Between Exploratory Variables and Dependent Variables of Interest, Study 2*

	Justification	Policy Support
Justification	-	-0.41***
Competition	-0.17***	0.11*
Zero-sum beliefs	-0.18***	0.20***
Positivity	0.38***	0.00
Positivity ingroup-outgroup difference	-0.29***	0.13**
Competence	0.38***	-0.02
Competence ingroup-outgroup difference	-0.31***	0.20***
Warmth	0.38***	0.00
Warmth ingroup-outgroup difference	-0.24***	0.14**
Social closeness	0.35***	0.02
Social closeness ingroup-outgroup difference	-0.25***	0.16**
Political orientation (social)	0.38***	-0.44***
Political orientation (economic)	0.41***	-0.54***

*Note:* \* indicates  $p$ -value < .05, \*\* indicates  $p$ -value < .01, and \*\*\* indicates  $p$ -value < .001.

**Additional Mediation Models**

For parsimony, in the main manuscript we only reported the results for the serial mediation with social closeness as the outcome variable. Here we report results for all other measures of prejudice (i.e., competence, warmth, positivity towards outgroups). We also tested simple indirect effects through perceived competition (controlling for zero-sum beliefs) and through zero-sum beliefs (controlling for perceived competition). Across all measures of prejudice, we found evidence of significant serial mediation. See Table 2 for simple and serial indirect effects for the average of perceived prejudice towards all outgroups (i.e., people of a different race, people of a different religion, people who speak a different language, immigrants/foreign workers, and people of a different socioeconomic status) across all measures of prejudice (i.e., competence, warmth, and positivity towards outgroups). And see Table 3 for simple and serial indirect effects for the ingroup – outgroup prejudice difference score across all measures of prejudice. In general, we found that when using the average of all outgroups as the prejudice score, all serial mediations were significant. That is, inequality led to greater zero-sum beliefs which led to greater competition and then prejudice. However, when using the difference score as the measure of prejudice, only the serial mediation for the measure of social closeness was significant.

**Table 2***Indirect Effects Across All Measures of Prejudice, Study 2*

<i>DV – difference score</i>	Simple Indirect Effect Via		Simple Indirect Effect Via		Serial Indirect Effect Via	
	Perceived Competition		Zero-Sum Beliefs		ZSBs→ Competition	
	<i>B</i>	95% CI	<i>B</i>	95% CI	<i>B</i>	95% CI
Competence	1.10	[-0.09, 2.74]	0.17	[-0.40, 1.03]	0.96	[-0.07, 2.26]
Warmth	0.89	[-0.29, 2.42]	0.21	[-0.33, 1.05]	0.78	[-0.26, 1.97]
Positivity	0.40	[-0.78, 1.67]	0.36	[-0.19, 1.34]	0.35	[-0.69, 1.44]
Social Closeness	<b>1.46</b>	<b>[0.13, 3.24]</b>	-0.16	[-0.86, 0.61]	<b>1.28</b>	<b>[0.12, 2.60]</b>

*Note:* bolded numbers indicate  $p < .05$ **Table 3***Indirect Effects Across All Measures of Prejudice, Study 2*

<i>DV – average</i>	Simple Indirect Effect Via		Simple Indirect Effect Via		Serial Indirect Effect Via	
	Perceived Competition		Zero-Sum Beliefs		ZSBs→ Competition	
	<i>B</i>	95% CI	<i>B</i>	95% CI	<i>B</i>	95% CI
Competence	<b>-1.85</b>	<b>[-3.62, -0.52]</b>	-0.01	[-0.73, 0.60]	<b>-1.61</b>	<b>[-3.0, -0.52]</b>
Warmth	<b>-1.80</b>	<b>[-3.48, -0.55]</b>	-0.19	[-1.06, 0.35]	<b>-1.57</b>	<b>[-2.96, -0.53]</b>
Positivity	<b>-1.31</b>	<b>[-2.75, -0.24]</b>	-0.33	[-1.20, 0.15]	<b>-1.16</b>	<b>[-2.36, -0.22]</b>
Social Closeness	<b>-1.83</b>	<b>[-3.71, -0.49]</b>	-0.18	[-1.04, 0.41]	<b>-1.60</b>	<b>[-3.01, -0.51]</b>

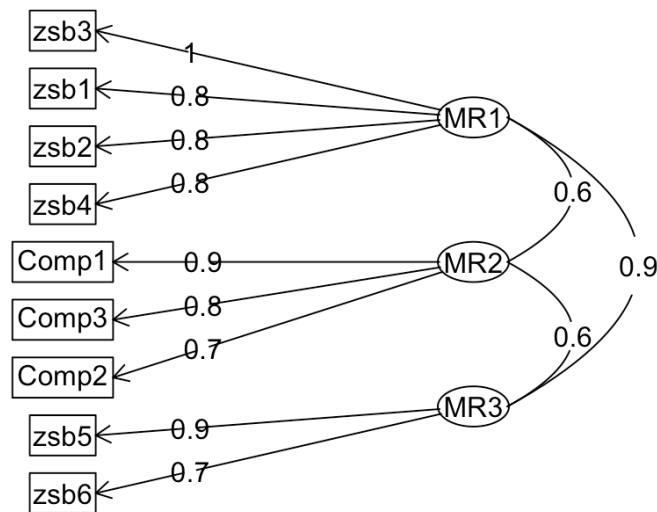
*Note:* bolded numbers indicate  $p < .05$ 

We also investigated a serial mediation where zero-sum beliefs and competition were switched (i.e., M1: competition, M2: zero-sum beliefs). Results were not significant.

**Factor Analysis for Zero-Sum Beliefs and Competition**

Because the effects were reduced when including competition as a mediator while controlling for zero-sum beliefs (and vice-versa), we conducted an exploratory factor analysis for the zero-sum beliefs and competition items to ensure they were in fact different constructs. We used “oblimin” rotation method and results revealed three eigenvalues greater than 1.

Competition was one factor: To what extent do you think different social groups in your geographic area... “will compete with each other for financial resources?”, “will try to keep financial resources for their social group?”, “will view each other as threats to their own financial resources?” And zero-sum beliefs was broken up into two factors: 1) “Successes of some social groups are usually failures of other social groups”, “If one social group gets richer it means that another social group gets poorer”, “Life is so devised that when one social group gains, other social groups have to lose”, “Life is like a tennis game – a social group wins only when others lose” and 2) “When some social groups are getting poorer it means that other social groups are getting richer”, “The wealth of some social groups is acquired at the expense of other social groups.” See Figure S1.

**Figure S1****Study 3****Additional Analyses with Exploratory Variables**

In Study 3, we included several exploratory variables. These items assessed status threat, perception that one's needs are met, social dominance orientation (Ho et al., 2015), race identity centrality, and internal and external motivation to control prejudice (Plant & Devine, 1998).

***Status Threat***

We measured participants' status threat with three items: 1) "I am scared that I may lose my socioeconomic position in society", 2) "I am fearful that I may fall down the socioeconomic ladder", and 3) "I am nervous that I will NOT be able to maintain my status in the future" ( $\alpha = .94$ ). This was on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

***Needs Met***

Participants reported whether they think people in their geographic region have their needs met. This was measured on a scale from 0 (*Generally, people do NOT have their basic needs met*) to 100 (*Generally, people have their basic needs met*).

### ***Social Dominance Orientation***

We assessed participants' endorsement of social dominance orientation (SDO). Due to time constraints, we selected four items to assess SDO (items from Ho et al., 2015): 1) "An ideal society requires some groups to be on top and others to be on the bottom", 2) "Some groups of people are simply inferior to other groups", 3) "Group equality should not be our primary goal", and (4) "It is unjust to try to make groups equal" ( $\alpha = .87$ ; 1 = *strongly disagree*; 7 = *strongly agree*).

### ***Racial Identity Centrality***

We measured participants' racial identity centrality using the following four items: 1) "I feel a bond with my racial/ethnic group," 2) "My racial/ethnic group heritage is an important part of my identity," 3) "Being part of my racial/ethnic group is an important part of how I see myself," and 4) "I feel committed to my racial/ethnic group" ( $\alpha = .95$ ; 1 = *strongly disagree*; 7 = *strongly agree*; items from Leach et al., 2008).

### ***Internal and External Motivation to Respond Without Prejudice***

We measured internal and external motivation to control prejudice (Plant & Devine, 1998). To assess internal motivations, we used the following three items due to time constraints: 1) "I attempt to act in nonprejudiced ways because it is personally important to me," 2) "I am personally motivated by my beliefs to be nonprejudiced," 3) "Being nonprejudiced is important to my self-concept" ( $\alpha = .89$ ; 1 = *strongly disagree*; 7 = *strongly agree*). To assess external motivations, we used the following three items due to time constraints: 1) "Because of today's



PC (politically correct) standards, I try to appear nonprejudiced toward other racial/ethnic groups,” 2) “If I acted prejudiced toward other racial/ethnic groups, I would be concerned that others would be angry with me,” 3) “I attempt to appear nonprejudiced in order to avoid disapproval from others” ( $\alpha = .81$ ; 1 = *strongly disagree*; 7 = *strongly agree*).

## **Results**

### ***Status Threat***

We investigated whether economic inequality condition influenced status threat. As expected, participants in the high (vs. low) inequality condition reported more status threat concerns,  $t(1570.6) = -2.98$ ,  $p = .003$ , 95% CI [-0.37, -0.08]. We also investigated these findings separately based on participants’ racial/ethnic self-identification. Asian participants reported greater status threat concerns when in the high (vs. low) inequality condition. No other racial groups showed significant difference by condition. See Table 4.

### ***Needs Met***

We investigated whether economic inequality condition influenced perceptions that people in one’s geographic region have their needs met. As expected, participants in the high inequality condition reported that people have their needs met to a lesser extent than participants in the low inequality condition,  $t(1561.1) = 6.30$ ,  $p < .001$ , 95% CI [5.00, 9.52]. We also investigated these findings separately based on participants’ racial/ethnic self-identification and found the same pattern for all racial groups ( $ps < .02$ ). See Table S4.

**Table S4***Means, Standard Deviations, and Inferential Statistics for Dependent Variables of Interest by Condition, Study 3*

DV	Participant group	Low Inequality		High Inequality		<i>t</i>	df	<i>p</i>	95% CI		Cohen's <i>d</i>
		Mean	SD	Mean	SD						
Status Threat											
	All	3.34	1.51	3.56	1.47	-2.98	1570.6	<b>0.003</b>	-0.37	-0.08	0.15
	Asians	3.50	1.39	3.78	1.35	-1.98	392	<b>0.049</b>	-0.54	-0.002	0.20
	Blacks	3.12	1.49	3.27	1.54	-1.05	389.2	0.297	-0.46	0.14	0.11
	Latinx	3.46	1.55	3.66	1.50	-1.25	345.5	0.213	-0.52	0.12	0.13
	Whites	3.30	1.59	3.54	1.47	-1.62	428.7	0.106	-0.53	0.05	0.16
Needs Met											
	All	63.99	22.19	56.74	23.44	6.30	1561.1	<b>&lt;.001</b>	5.00	9.52	0.32
	Asians	66.96	21.50	60.11	22.29	3.10	389.5	<b>0.002</b>	2.51	11.20	0.31
	Blacks	62.46	21.63	54.42	23.53	3.52	384.6	<b>&lt;.001</b>	3.55	12.53	0.36
	Latinx	60.46	23.02	51.46	24.33	3.58	351.2	<b>&lt;.001</b>	4.05	13.94	0.38
	Whites	65.42	22.31	60.42	22.60	2.31	425.7	<b>0.02</b>	0.74	9.26	0.22

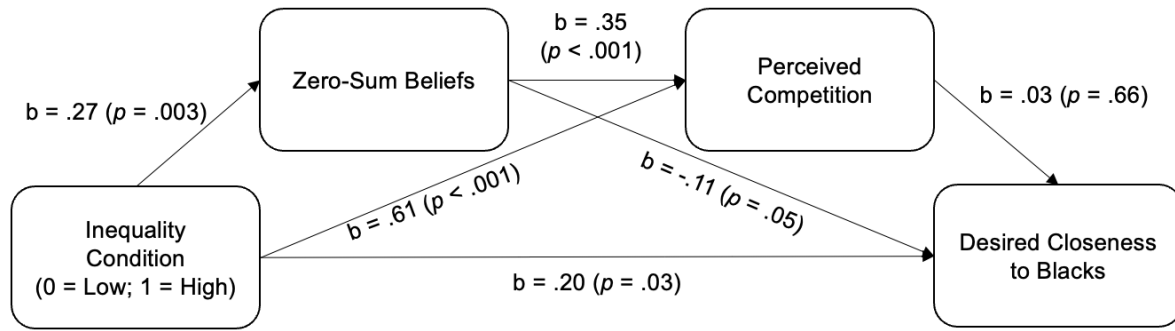
**Additional Mediation Models**

*Inequality* → *Zero-sum Beliefs* → *Competition* → *Desired Closeness to Outgroups*

We investigated this serial mediation pattern separately based on participants' racial/ethnic self-identification using lavaan with 10,000 bootstrapped resamples (Rosseel, 2012). See Figure S2. We did not find evidence for a serial indirect effect. However, this serial mediation pattern also simultaneously investigates simple mediation via zero-sum beliefs and perceived competition. For Black participants, there was a significant simple mediation between inequality and closeness with White people via perceived zero-sum beliefs, suggesting that high (vs. low) inequality increased zero-sum beliefs and, in turn, led to less desired closeness with White people, indirect effect  $b = -.04$ , 95% CI  $[-.10, -.002]$ . For White participants, there was also significant simple mediation between inequality and closeness with Black people via perceived zero-sum beliefs. This pattern suggests that high (vs. low) inequality increased zero-sum beliefs and, in turn, lead to less desired closeness with Black people, indirect effect  $b = -.04$ , 95% CI  $[-.09, -.002]$ . For Latinx participants, there was a significant simple mediation between inequality and closeness with Asians and Blacks via perceived competition. In both cases, this pattern suggests that high (vs. low) inequality increased perceived competition and, in turn, lead to less desired closeness with Asian and Black people, indirect effect  $b_{Asian} = -.08$ , 95% CI  $[-.17, -.01]$ , indirect effect  $b_{Black} = -.09$ , 95% CI  $[-.19, -.002]$ . No other findings yielded statistically significant indirect effects. Taken together, these findings suggest that, overall, zero-sum beliefs may be a particularly potent mechanism to consider when trying to understand the relationship between economic inequality and racial/ethnic prejudice. But the mechanism may vary by racial group.

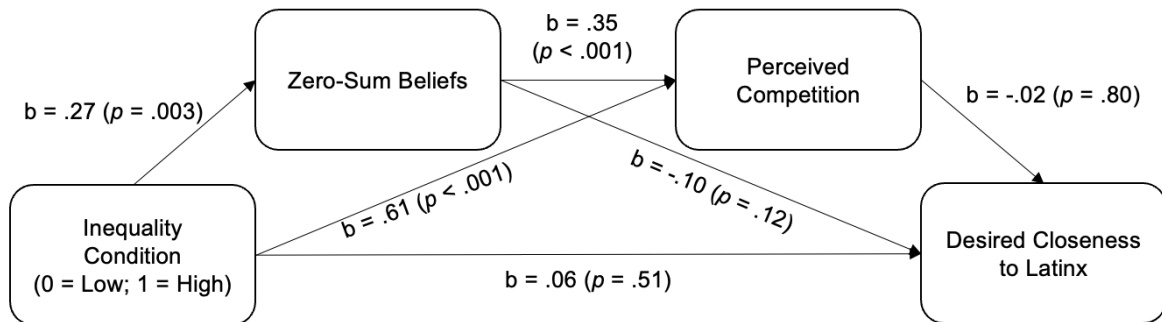
**Figure S2**

*Asian Participants*



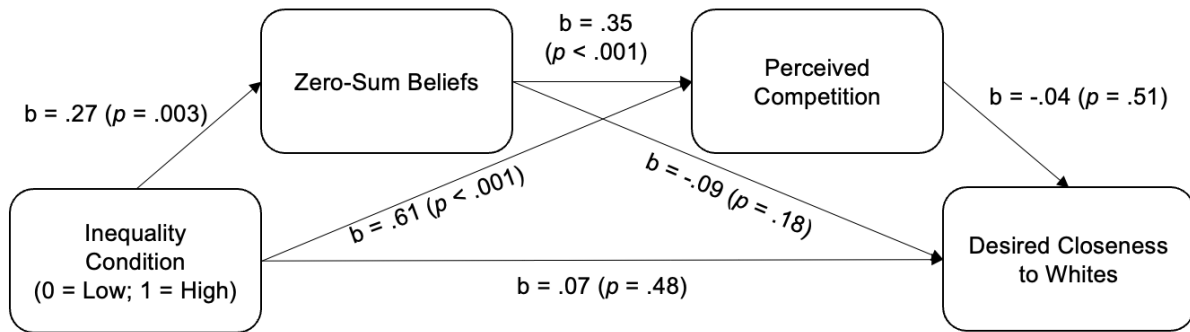
Indirect Effects:

Mediation Pattern	<i>b</i>	95% CI
Condition → Zero-Sum → Social Closeness	-.03	[-.07, -.00]
Condition → Competition → Social Closeness	.02	[-.05, .08]
Condition → Zero-Sum → Competition → Social Closeness	.002	[-.01, .02]



Indirect Effects:

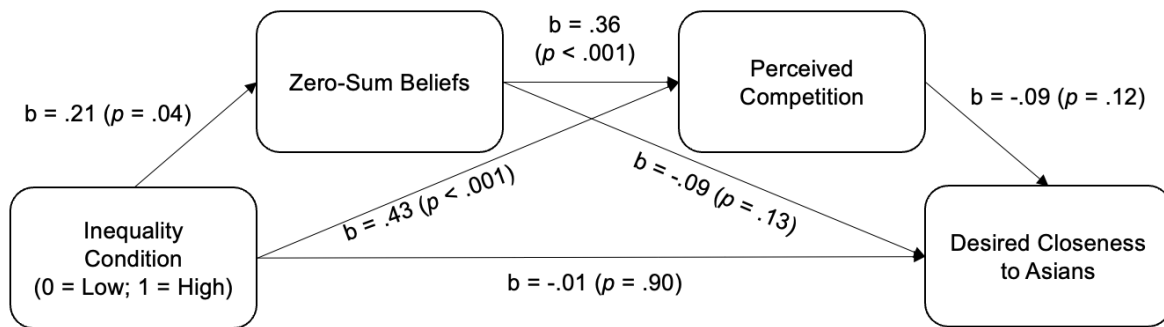
Mediation Pattern	<i>b</i>	95% CI
Condition → Zero-Sum → Social Closeness	-.03	[-.07, .01]
Condition → Competition → Social Closeness	-.01	[-.09, .06]
Condition → Zero-Sum → Competition → Social Closeness	-.002	[-.02, .01]



Indirect Effects:

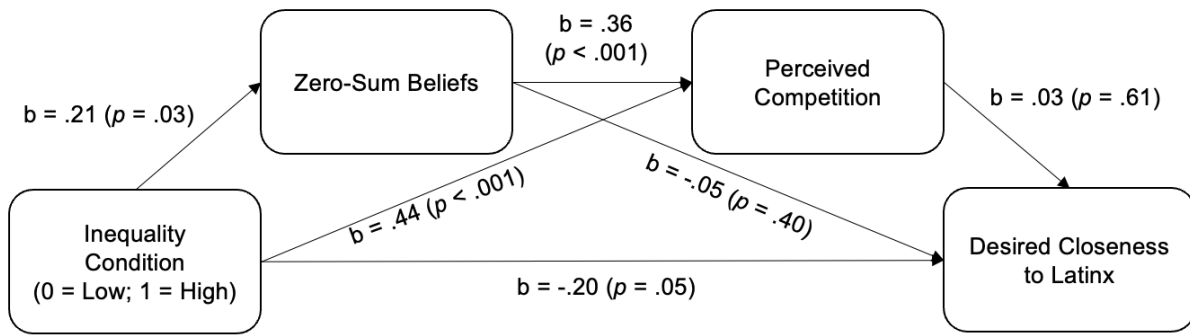
Mediation Pattern	<i>b</i>	95% CI
Condition → Zero-Sum → Social Closeness	-.02	[-.07, .01]
Condition → Competition → Social Closeness	-.03	[-.10, .05]
Condition → Zero-Sum → Competition → Social Closeness	-.004	[-.02, .01]

*Black Participants*



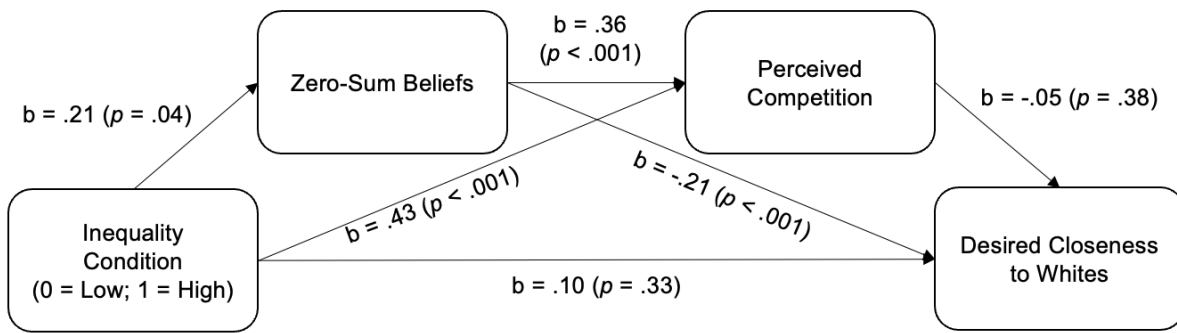
Indirect Effects:

Mediation Pattern	<i>b</i>	95% CI
Condition → Zero-Sum → Social Closeness	-.02	[-.06, .01]
Condition → Competition → Social Closeness	-.04	[-.09, .01]
Condition → Zero-Sum → Competition → Social Closeness	-.01	[-.02, .002]



Indirect Effects:

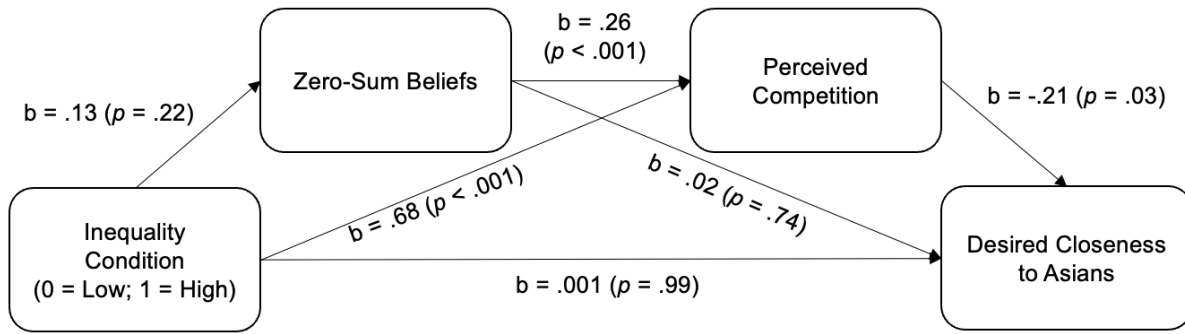
Mediation Pattern	<i>b</i>	95% CI
Condition → Zero-Sum → Social Closeness	-.01	[-.04, .01]
Condition → Competition → Social Closeness	.01	[-.03, .06]
Condition → Zero-Sum → Competition → Social Closeness	.002	[-.01, .01]



Indirect Effects:

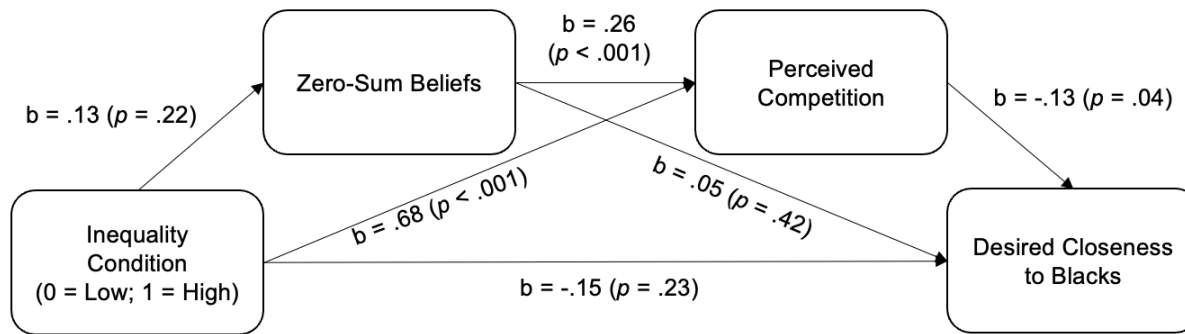
Mediation Pattern	<i>b</i>	95% CI
Condition → Zero-Sum → Social Closeness	-.04	[-.10, -.002]
Condition → Competition → Social Closeness	-.02	[-.07, .03]
Condition → Zero-Sum → Competition → Social Closeness	-.003	[-.02, .004]

*Latinx Participants*



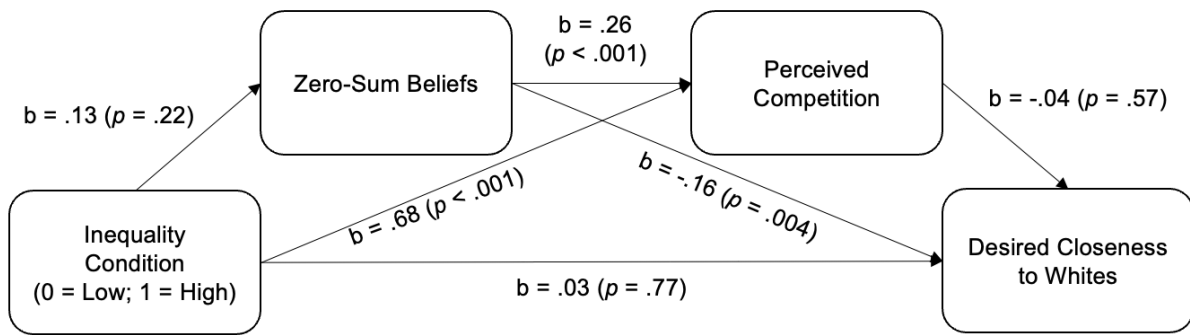
Indirect Effects:

Mediation Pattern	<i>b</i>	95% CI
Condition → Zero-Sum → Social Closeness	.002	[-.02, .02]
Condition → Competition → Social Closeness	-.08	[-.17, -.01]
Condition → Zero-Sum → Competition → Social Closeness	-.004	[-.02, .003]



Indirect Effects:

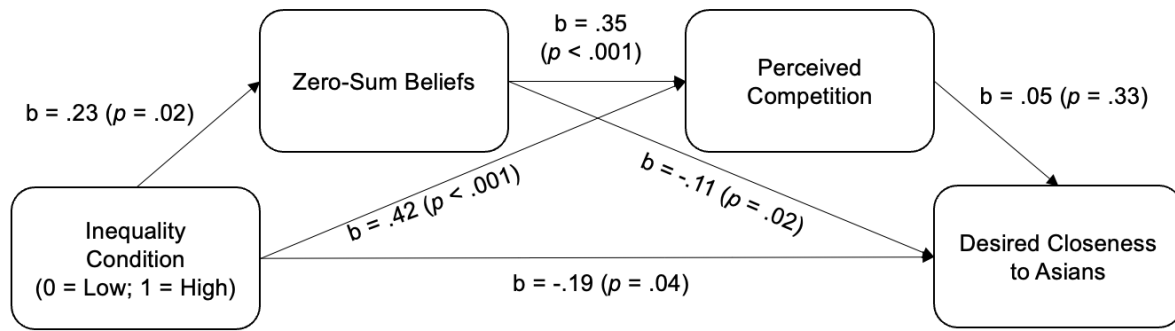
Mediation Pattern	<i>b</i>	95% CI
Condition → Zero-Sum → Social Closeness	.01	[-.01, .03]
Condition → Competition → Social Closeness	-.09	[-.19, -.002]
Condition → Zero-Sum → Competition → Social Closeness	-.01	[-.02, .003]



Indirect Effects:

Mediation Pattern	<i>b</i>	95% CI
Condition → Zero-Sum → Social Closeness	-.02	[-.07, .01]
Condition → Competition → Social Closeness	-.02	[-.11, .06]
Condition → Zero-Sum → Competition → Social Closeness	-.001	[-.01, .004]

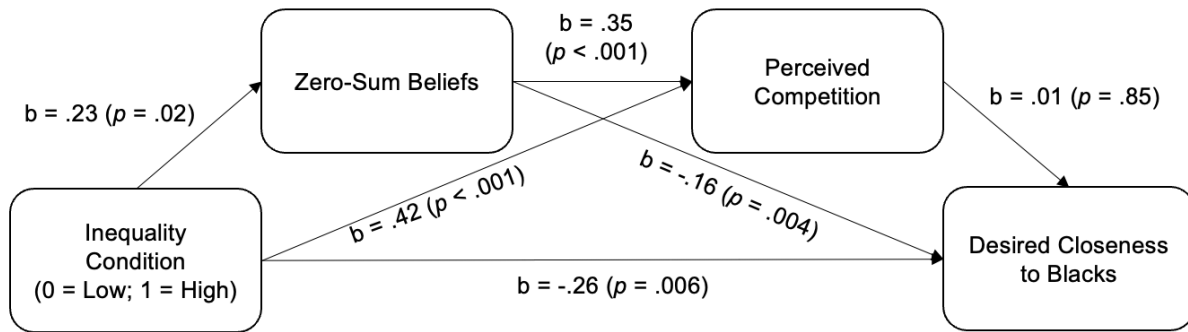
*White Participants*



Indirect Effects:

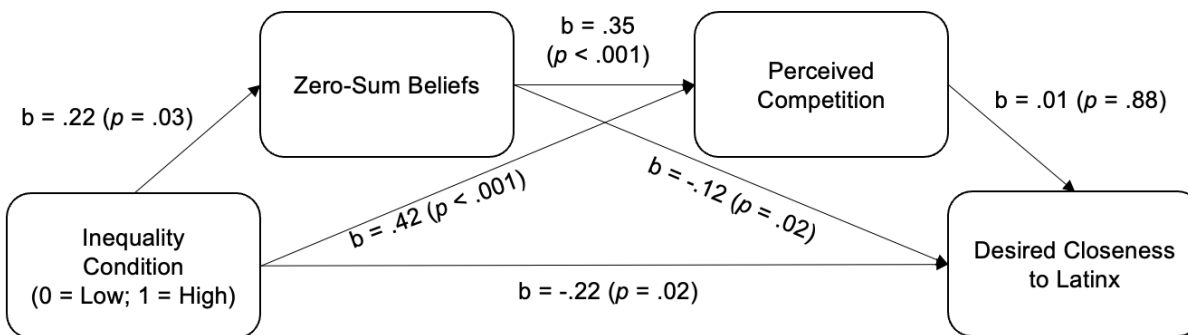
Mediation Pattern	<i>b</i>	95% CI
Condition → Zero-Sum → Social Closeness	-.03	[-.06, .000]
Condition → Competition → Social Closeness	.02	[-.02, .07]
Condition → Zero-Sum → Competition → Social Closeness	.004	[-.004, .02]





Indirect Effects:

Mediation Pattern	<i>b</i>	95% CI
Condition → Zero-Sum → Social Closeness	-.04	[-.09, -.002]
Condition → Competition → Social Closeness	.004	[-.04, .05]
Condition → Zero-Sum → Competition → Social Closeness	.001	[-.01, .01]



Indirect Effects:

Mediation Pattern	<i>b</i>	95% CI
Condition → Zero-Sum → Social Closeness	-.03	[-.07, .000]
Condition → Competition → Social Closeness	.004	[-.05, .05]
Condition → Zero-Sum → Competition → Social Closeness	.001	[-.01, .01]

We also tested simple indirect effects on desired closeness through perceived competition (controlling for zero-sum beliefs) and through zero-sum beliefs (controlling for perceived competition). We ran these models with all participants as well as by participant race. We find that zero-sum beliefs (controlling for competition) is not a significant mediator. Competition (when controlling for zero-sum beliefs) is also not a significant mediator with some exceptions.

Latinx participants in the higher inequality condition perceive people in their group to want more social distance from Asian and Black groups. See Table S5.

**Table S5*****All participants- desired closeness***

	<b>Competition Indirect Effect</b>		<b>Zero-Sum Indirect Effect</b>	
	<b>b</b>	<b>95%</b>	<b>b</b>	<b>95%</b>
Asians	-0.03	[-.06, .01]	0.000	[-.01, .01]
Blacks	-0.02	[-.06, .02]	0.001	[-.01, .01]
Latinx	0.01	[-.03, .04]	-0.002	[-.01, .01]
Whites	-0.02	[-.06, .02]	0.002	[-.02, .02]

***Asian participants- desired closeness***

	<b>Competition Indirect Effect</b>		<b>Zero-Sum Indirect Effect</b>	
	<b>b</b>	<b>95%</b>	<b>b</b>	<b>95%</b>
Blacks	0.02	[-.05, .08]	-0.001	[-.02, .03]
Latinx	-0.01	[-.09, .06]	-0.001	[-.02, .02]
Whites	-0.03	[-.10, .05]	-0.001	[-.02, .02]

***Black participants- desired closeness***

	<b>Competition Indirect Effect</b>		<b>Zero-Sum Indirect Effect</b>	
	<b>b</b>	<b>95%</b>	<b>b</b>	<b>95%</b>
Asians	-0.04	[-.09, .01]	-0.002	[-.03, .02]
Latinx	0.01	[-.03, .06]	-0.001	[-.02, .01]
Whites	-0.02	[-.07, .03]	-0.01	[-.05, .04]

***Latinx participants - desired closeness***

	<b>Competition Indirect Effect</b>		<b>Zero-Sum Indirect Effect</b>	
	<b>b</b>	<b>95%</b>	<b>b</b>	<b>95%</b>
Asians	<b>-0.08</b>	<b>[-.17, -.01]</b>	-0.002	[-.02, .01]
Black	<b>-0.09</b>	<b>[-.19, -.01]</b>	-0.004	[-.03, .01]
Whites	-0.02	[-.11, .06]	0.01	[-.02, .06]

***White participants - desired closeness***

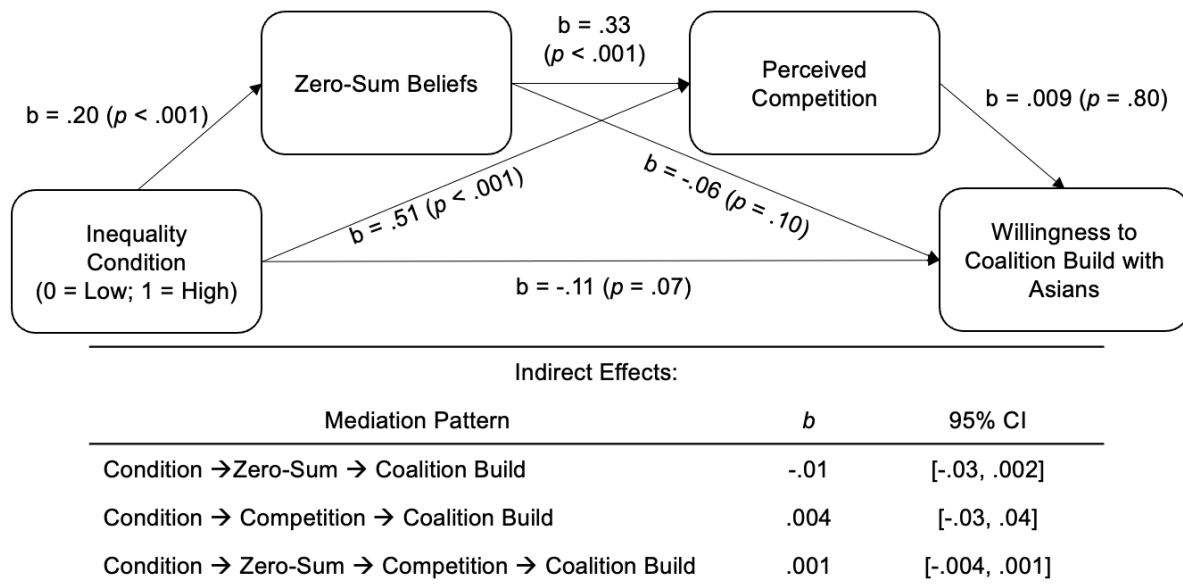
	<b>Competition Indirect Effect</b>		<b>Zero-Sum Indirect Effect</b>	
	<b>b</b>	<b>95%</b>	<b>b</b>	<b>95%</b>
Asians	0.02	[-.02, .07]	-0.004	[-.03, .02]
Black	0.004	[-.04, .05]	-0.01	[-.04, .02]
Latinx	0.004	[-.04, .05]	-0.003	[-.03, .02]

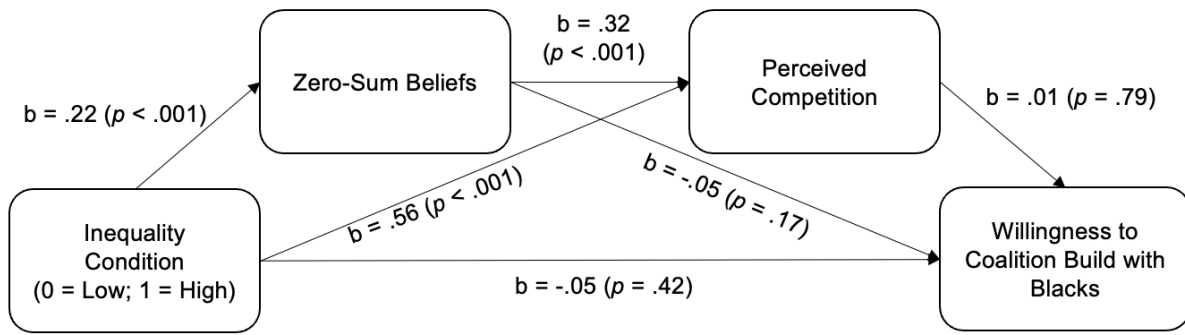
*Inequality → Zero-sum Beliefs → Competition → Coalition Building with Outgroups*

We ran serial mediation models with zero-sum beliefs and competition as sequential mediators predicting coalition building with outgroups. To test this pattern, we used lavaan with 10,000 bootstrapped resamples (Rosseel, 2012). When analyzing all participants, we found a significant serial mediation for coalition building with Latinx participants only. Contrast to expectations, greater inequality led to greater zero-sum beliefs and competition, which then led to greater willingness to coalition build with Latinx people. There was also a significant simple mediation for willingness to coalition build with Whites via zero-sum beliefs. That is, greater inequality led to greater zero-sum, which then led to less willingness to coalition build with White people. See Figure 3.

**Figure 3**

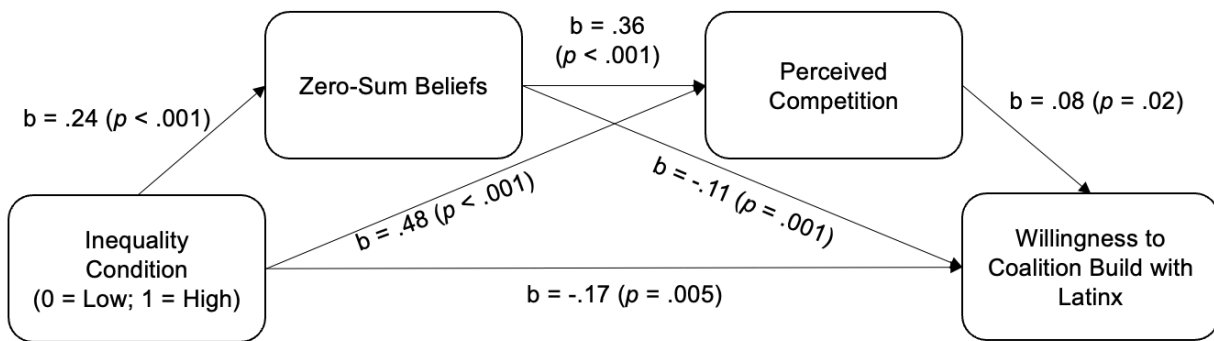
All Participants





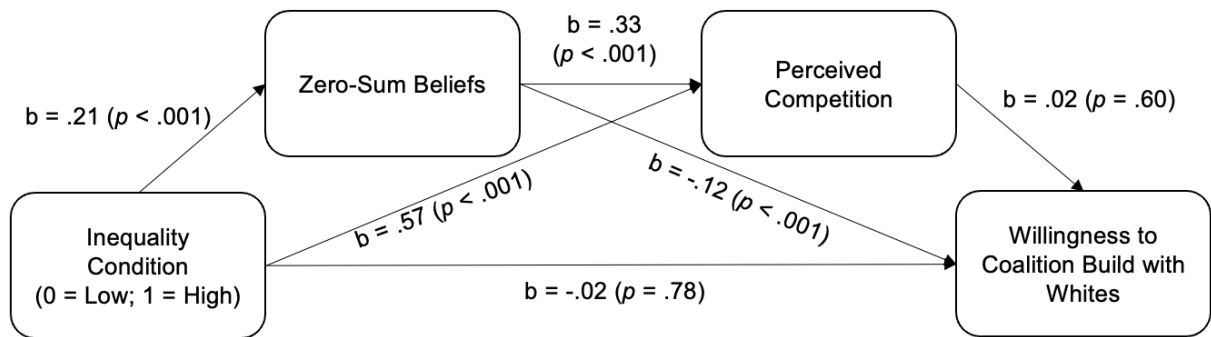
Indirect Effects:

Mediation Pattern	<i>b</i>	95% CI
Condition → Zero-Sum → Coalition Build	-.01	[-.03, .004]
Condition → Competition → Coalition Build	.005	[-.03, .05]
Condition → Zero-Sum → Competition → Coalition Build	.001	[-.004, .01]



Indirect Effects:

Mediation Pattern	<i>b</i>	95% CI
Condition → Zero-Sum → Coalition Build	-.03	[-.05, -.01]
Condition → Competition → Coalition Build	.04	[.006, .07]
Condition → Zero-Sum → Competition → Coalition Build	.01	[.001, .01]



Indirect Effects:

Mediation Pattern	<i>b</i>	95% CI
Condition → Zero-Sum → Coalition Build	-.03	[-.05, -.01]
Condition → Competition → Coalition Build	.01	[-.03, .05]
Condition → Zero-Sum → Competition → Coalition Build	.001	[-.004, .006]

We tested simple indirect effects on coalition building through perceived competition (controlling for zero-sum beliefs) and through zero-sum beliefs (controlling for perceived competition). We ran these models with all participants as well as by participant race. As with desired social closeness, zero-sum beliefs (when controlling for competition) is not a significant mediator. Competition (when controlling for zero-sum beliefs) was again not a significant mediator with some exceptions. When including all participants and when only including White participants in the model, coalition building with Latinx people is perceived to be higher when in the high inequality condition. See Table 6.

**Table 6**

*All participants- coalition building*

	Competition Indirect Effect		Zero-Sum Indirect Effect	
	<i>b</i>	95%	<i>b</i>	95%
Asians	0.004	[-.03, .04]	0.000	[-.008, .009]
Blacks	0.005	[-.03, .04]	0.000	[-.007, .008]
Latinx	<b>0.04</b>	<b>[.006, .07]</b>	-0.002	[-.02, .01]
Whites	0.01	[-.03, .05]	0.002	[-.01, .02]

*Asian participants- coalition building*

	Competition Indirect Effect		Zero-Sum Indirect Effect	
	<b>b</b>	<b>95%</b>	<b>b</b>	<b>95%</b>
Blacks	0.05	[-.02, .12]	0.000	[-.02, .02]
Latinx	0.05	[-.02, .14]	0.000	[-.02, .02]
Whites	0.03	[-.04, .11]	0.000	[-.01, .02]

*Black participants- coalition building*

	Competition Indirect Effect		Zero-Sum Indirect Effect	
	<b>b</b>	<b>95%</b>	<b>b</b>	<b>95%</b>
Asians	-0.02	[-.07, .03]	0.000	[-.01, .01]
Latinx	0.02	[-.03, .08]	-0.001	[-.02 .01]
Whites	-0.01	[-.05, .04]	-0.01	[-.04, .04]

*Latinx participants – coalition building*

	Competition Indirect Effect		Zero-Sum Indirect Effect	
	<b>b</b>	<b>95%</b>	<b>b</b>	<b>95%</b>
Asians	-0.01	[-.10 .08]	-0.01	[-.04, .01]
Black	-0.06	[-.16, .03]	-0.02	[-.06 .02]
Whites	0.02	[-.07, .11]	0.01	[-.02 .05]

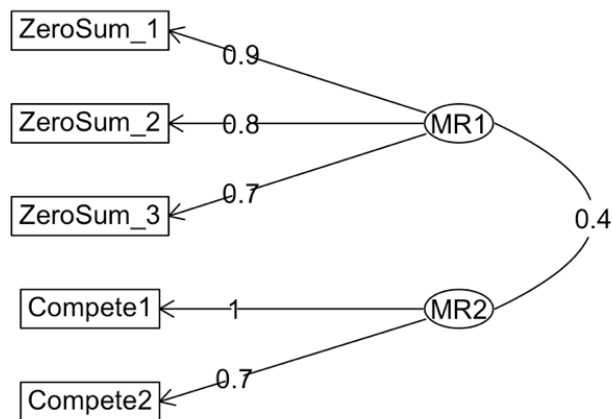
*White participants – coalition building*

	Competition Indirect Effect		Zero-Sum Indirect Effect	
	<b>b</b>	<b>95%</b>	<b>b</b>	<b>95%</b>
Asians	0.03	[-.01, .08]	-0.01	[-.04, .02]
Black	0.02	[-.02, .07]	-0.01	[-.05 .03]
Latinx	<b>0.04</b>	<b>[-.002, .10]</b>	-0.01	[-.05, .03]

### Factor Analysis for Zero-Sum Beliefs and Competition

We conducted a factor analysis for the zero-sum beliefs and competition items to ensure they were in fact different constructs. We used “oblimin” rotation method and results revealed two eigenvalues greater than 1. Competition was one factor: “People in my area compete with each other for financial resources.”, “My area is very competitive in terms of earning financial resources.” And zero-sum beliefs was another factor: 1) “If one group of people gets richer, it means that other groups of people get poorer.”, “Life is so devised that when some people gain, others have to lose.”, “The wealth of a few is acquired at the expense of many.” See Figure 4.

**Figure 4.**



### Conceptual Replication Future Society: Study 1<sup>1</sup>

In a conceptual replication, we examined whether high economic inequality (relative to low economic inequality) in a hypothetical future society would cause greater perceived prejudice by way of perceived competition and threat. We decided to report these future society studies in the supplement as the geographical region manipulation was more realistic and, therefore, more externally valid. Across all these conceptual replication studies, we found the same pattern of results as was reported in the manuscript.

#### Method

##### Participants

Participants were 404 individuals in the U.S. recruited through CloudResearch. After removing data from individuals who failed the attention checks and manipulation checks, 378 participants remained. A majority of participants reported identifying as White (76.98%, 8.73% Black, 10.58% Asian, 0.53% Native American, 2.12% multiracial, and 1.06% other) and female (56.6%, 43.12% male, and 0.26% other). Participants' ages ranged from 18 to 77 years ( $M = 39.61$ ,  $SD = 13.11$ ).

##### Procedure and Measures

Participants first were randomly assigned to either the *High Economic Inequality* condition or the *Low Economic Inequality* condition. In the *High Economic Inequality* condition, participants read about a hypothetical future society in the year 3000 where economic inequality has reached historically high levels. In the *Low Economic Inequality* condition, participants also read about a hypothetical future society in the year 3000 but economic inequality has reached historically low levels. The exact wording for the two conditions is presented in Table S7.

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<sup>1</sup> Links to future society pre-registrations: Study 1: [https://aspredicted.org/QDW\\_MZX](https://aspredicted.org/QDW_MZX); Study 3: [https://aspredicted.org/DAN\\_GNX](https://aspredicted.org/DAN_GNX)



**Table S7***Study 1: Future Society conditions*

Low Inequality Condition	High Inequality Condition
<p>Imagine that you are living in the United States in the year 3,000. Economic inequality has reached historically low levels. This means that <b>economic resources are distributed very equally – most people in the U.S. have a similar amount of wealth</b>. Because equality is self-perpetuating, most people are in the middle class, and the upper and lower classes have all but disappeared.</p>	<p>Imagine that you are living in the United States in the year 3,000. Economic inequality has reached historically high levels. This means that <b>economic resources are distributed very unequally - some people have a significant amount of wealth whereas other people are barely scraping by</b>. Because inequality is self-perpetuating, the rich tend to get richer and the poor tend to get poorer, and the middle class has all but disappeared.</p>
<p>Imagine that you are living in the United States in the year 3,000. Economic inequality has reached historically low levels. This means that <b>economic resources are distributed very equally – most people in the U.S. have a similar amount of wealth</b>. Because equality is self-perpetuating, most people are in the middle class, and the upper and lower classes have all but disappeared.</p>	<p>Imagine that you are living in the United States in the year 3,000. Economic inequality has reached historically high levels. This means that <b>economic resources are distributed very unequally - some people have a significant amount of wealth whereas other people are barely scraping by</b>. Because inequality is self-perpetuating, the rich tend to get richer and the poor tend to get poorer, and the middle class has all but disappeared.</p>

Then, participants completed measures assessing how they feel people in this future society would behave and feel towards other individuals and social groups. Finally, they reported demographic information and were debriefed. Means, standard deviations, reliability and intercorrelations for measures are presented in Table 8.

**Group-level competition.** Individuals reported how much competition between social groups there would be in the future society on a scale from 1 (Not at all) to 5 (All of the time). The 3-item measure consisted of the following items: “In this future society, to what extent do you think different social groups will compete with each other for financial resources?”, “In this future society, to what extent do you think different social groups will try to keep financial

resources for their social group?” and “In this future society, to what extent do you think different social groups will view each other as threats to their own financial resources?”

**Individual-level competition.** Individuals reported how much competition between individuals there would be in the future society on a scale from 1 (Not at all) to 5 (All of the time). The 3-item measure consisted of the following items: “In this future society, to what extent do you think individuals (regardless of social group) will compete with each other for financial resources?”, “In this future society, to what extent do you think individuals (regardless of social group) will try to keep financial resources for themselves?” and “In this future society, to what extent do you think individuals (regardless of social group) will view each other as threats to their own financial resources?”

**Threat.** Individuals reported perceived threat with 1-item measure on a scale from 1 (Not threatening at all) to 6 (Extremely threatening). The item asked: “In this future society, how threatening would this level of economic inequality be to residents' livelihoods?”

**Warmth.** Individuals reported how warm or cold people in the future society would feel towards others on a scale from 0 (Extremely cold/negative) to 100 (Extremely warm/positive). The items asked how warm/positively or cold/negatively people in this future society would feel toward “People in their social group”, “People who are NOT in their social group” and “People in general, regardless of social group.” We took a difference measure of attitudes towards people in their social group – attitudes towards people out of their social group called **Ingroup-outgroup warmth difference** and examined attitudes towards people in general separately.

**Social Distance.** Individuals reported how much they think people in this future society would want different social groups as neighbors on a scale from 0 (Definitely would want as neighbors) to 10 (Definitely would NOT want as neighbors). Note this scale is scored in the

opposite way as the other studies (higher scores = more social distance). The groups consisted of: “People of a different race”, “People of a different religion”, “People who speak a different language”, “Immigrants/foreign workers”, and “People of a different socioeconomic status (i.e., people who have a different wealth, education, or occupational prestige level than themselves).” We created a mean score for all social groups.

**System justification.** Individuals reported how much they agree or disagree that people in the future society deserve what they have on a scale from 1 (Strongly disagree) to 7 (Strongly agree). The 3-item measure consisted of: “People who are wealthy in this future society probably worked for what they have”, “People deserve what they have in this future society”, and “If people are not happy with what they have in this future society, they need to work harder.”

**Policy support.** Individuals reported whether people in the future society would support progressive policies on a scale from 1 (Strongly disagree) to 7 (Strongly agree). The 3-item measure consisted of support for: “Social policies, such as job training or healthcare, that help traditionally marginalized groups”, “Economic policies, such as cash assistance or food vouchers, that help traditionally marginalized groups”, and “People working for what they have without government assistance.”

**Political orientation.** Individuals reported which way they lean on social issues (e.g., abortion, gun rights, gay rights) and economic issues (e.g., taxation, government spending) on a scale from 1 (Strongly liberal) to 7 (Strongly conservative).

## Results

We conducted independent t-tests to examine whether level of inequality affected perceived competition, threat, and prejudice. We found that people in the *High Economic Inequality* condition perceived more group-level competition ( $M = 4.43$ ,  $SD = 0.70$ ) than in the

*Low Economic Inequality* condition ( $M = 2.55, SD = 1.11$ ),  $t(329.5) = -19.88, p < .001$ , CI [-2.07, -1.70] and we found the same pattern for individual-level competition such that those in the *High Economic Inequality* condition perceived more individual-level competition ( $M = 4.46, SD = 0.67$ ) than in the *Low Economic Inequality* condition ( $M = 2.64, SD = 1.15$ ),  $t(315.56) = -18.91, p < .001$ , CI [-2.01, -1.63]. People in the *High Economic Inequality* condition also perceived greater threat to residents livelihood in the *High Economic Inequality* condition ( $M = 5.33, SD = 0.94$ ) relative to the *Low Economic Inequality* condition ( $M = 2.36, SD = 1.37$ ),  $t(344.5) = -24.69, p < .001$ , CI [-3.21, -2.73].

Participants also showed greater prejudice in the *High Economic Inequality* condition relative to the *Low Economic Inequality* condition. That is, those in the *High Economic Inequality* condition reported greater perceived warmth towards one's ingroup – one's outgroup<sup>2</sup> ( $M = 42.15, SD = 31.16$ ) than in the *Low Economic Inequality* condition ( $M = 17.43, SD = 23.57$ ),  $t(338.39) = -8.66, p < .001$ , CI [-30.34, -19.11]. Participants also reported less warmth towards people in general (regardless of social group) in the *High Economic Inequality* condition ( $M = 38.86, SD = 21.33$ ) relative to the *Low Economic Inequality* condition ( $M = 65.83, SD = 21.35$ ),  $t(374.52) = 12.28, p < .001$ , CI [22.64, 31.28]. Further, participants reported that people in this future society would want to have greater social distance from other social groups (i.e., not want them as neighbors) more so in the *High Economic Inequality* condition ( $M = 5.95, SD = 2.69$ ) than the *Low Economic Inequality* condition ( $M = 4.39, SD = 2.42$ ),  $t(365.75) = -5.91, p < .001$ , CI [-2.08, -1.04].

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<sup>2</sup> This is a difference score. Higher scores mean more perceived warmth towards one's ingroup.

## Conceptual Replication Future Society: Study 2

In this study, we decided to just focus on group-level competition – as it is often conceptualized in this way. We also measured zero-sum beliefs.

### Method

#### Participants

Participants were 421 individuals in the U.S. recruited through CloudResearch. After removing data from individuals who failed the attention checks and manipulation checks, 366 participants remained. A majority of participants reported identifying as White (79.23%, 11.20% Black, 6.28% Asian, 0.55% Native American, 2.19% multiracial, and 0.55% other) and female (56.28%, 43.17% male, and 0.55% other). Participants' ages ranged from 19 to 72 years ( $M = 38.25$ ,  $SD = 11.66$ ).

#### Procedure and Measures

Participants first were randomly assigned to either the *High Economic Inequality* condition or the *Low Economic Inequality* condition, which were the same as in Study 1. Then, participants completed measures assessing how they feel people in this future society would behave and feel towards other social groups. Finally, they reported demographic information and were debriefed. Means, standard deviations, reliability and intercorrelations for measures are presented in Table 2.

**Zero-sum beliefs.** Individuals reported how much people would have zero-sum beliefs between social groups in the future society on a scale from 1 (Strongly disagree) to 7 (Strongly agree). Example items include: “Successes of some social groups are usually failures of other social groups” and “If one social group gets richer it means that another social group gets poorer.”

As in Study 1, participants also reported **group-level competition, threat, warmth, social distance, system justification, policy support, and political orientation**. Individual-level competition and warmth towards individual regardless of social group are not reported in this study.

### Results

We conducted independent t-tests to examine whether inequality leads to greater perceived competition, threat, and prejudice. Consistent with Study 1, we found that people in the *High Economic Inequality* condition perceived greater competition between groups ( $M = 4.24, SD = 0.82$ ) than in the *Low Economic Inequality* ( $M = 2.43, SD = 1.43$ ),  $t(331.97) = -17.41, p < .001, CI [-2.01, -1.60]$ . and perceived more threat to residents livelihoods ( $M = 5.45, SD = 0.82$ ) than in the *Low Economic Inequality* ( $M = 2.28, SD = 1.52$ ),  $t(282.76) = -24.86, p < .001, CI [-3.42, -2.92]$ . Further, we found that people in the *High Economic Inequality* condition perceived greater zero-sum beliefs ( $M = 5.21, SD = 0.82$ ) than in the *Low Economic Inequality* ( $M = 3.02, SD = 1.52$ ),  $t(357.57) = -13.53, p < .001, CI [-2.50, -1.87]$ .

We also found that high inequality led to greater perceived warmth for one's ingroup than outgroup ( $M = 54.17, SD = 29.45$ ) than low inequality ( $M = 16.22, SD = 19.82$ ) and high inequality led to greater perceived desire to social distance from outgroups ( $M = 6.28, SD = 2.89$ ) than low inequality ( $M = 4.21, SD = 2.61$ ).

### Conceptual Replication Future Society: Study 3

The first two studies showed that high inequality leads to greater perceived zero-sum beliefs, intergroup competition, and in turn, prejudice towards outgroups. In this next study, we aim to mitigate perceived prejudice by targeting and reducing intergroup competition.

#### Method

##### Participants

We recruited 421 U.S. participants through CloudResearch. After removing data from individuals who failed the attention checks and manipulation checks, 339 participants remained. A majority of participants reported identifying as White (66.42%, 7.08% Black, 8.55% Asian, 0.59% Native American, 3.24% multiracial, 2.06% other, and 0.29% did not answer) and female (55.75%, 43.07% male, 0.88% other, and 0.29% did not answer). Participants' ages ranged from 19 to 83 years ( $M = 43.32$ ,  $SD = 14.33$ ).

##### Procedure and Measures

Participants first were randomly assigned to either the *High Competition* condition or the *Low Competition* condition. In both conditions, participants read about a future society in the year 3000 where inequality is at historically high levels (this was the same as the *High Inequality condition* in Study 1 and 2). In the *High Competition* condition, participants read that “there is a limit to the amount of money in the economy at any one time. For this reason, people are competing against each other for economic resources. Therefore, when people move up in economic status, it is often at the expense of others.” In the *Low Competition* condition, participants read that “there is no limit to the amount of money in the economy at any one time. For this reason, people are not competing against each other for economic resources. Therefore, when people move up in economic status, it is NOT at the expense of others.” We

start with this future society design before the geographic region design, because having high inequality and low competition (and the inverse) is more believable in a future society framework. That is, in the real world, it may be harder to believe those conditions could coexist. Then, participants completed measures assessing how they feel people in this future society would behave and feel towards other social groups. Finally, they reported demographic information and were debriefed. Means, standard deviations, reliability and intercorrelations for measures are presented in Table 4.

As in Study 1 and 2, participants reported **warmth measures, social distance,** and their **political orientation.**

## Results

### Manipulation check

First, we examined whether our manipulation was effective. We conducted independent t-tests and found that people perceived greater zero-sum beliefs<sup>3</sup> ( $M = 6.34, SD = 1.06$ ) and competition ( $M = 4.58, SD = 0.76$ ) in the *High Competition* condition and less in the *Low Competition* condition (zero-sum beliefs:  $M = 2.15, SD = 1.66$ ; competition:  $M = 2.14, SD = 1.25$ ). That is, the manipulation was successful.

### Prejudice

We conducted independent t-tests to examine whether low competition (relative to high competition) in a highly unequal future society leads to reduced prejudice. We found that people in the *Low Competition* condition reported that people in the future society would have less bias

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<sup>3</sup> As zero-sum beliefs and competition were manipulation checks we cut the measures down to just one item. The zero-sum beliefs measure was “If one social group gets richer it means that another social group gets poorer” and the competition measure was “To what extent do you think different social groups in your geographic area will compete with each other for financial resources?”



towards their ingroup relative to their outgroup ( $M = 31.23$ ,  $SD = 28.79$ ) than in the *High Competition* condition ( $M = 44.31$ ,  $SD = 32.89$ ),  $t(333.75) = -3.90$ ,  $p < .001$ , CI [-19.68, -6.48]. Further, people in the *Low Competition* condition reported that people in the future society would have more desire to have outgroup members as neighbors ( $M = 5.07$ ,  $SD = 2.26$ ) than in the *High Competition* condition ( $M = 6.66$ ,  $SD = 2.74$ ),  $t(336.5) = -5.83$   $p < .001$ , CI [-2.12, -1.05].

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