Case Report

Similarity focus and support for redistribution☆

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ABSTRACT

Although wealth inequality in the U.S. has soared to unprecedented levels in recent decades, support for redistribution is not commonplace. This research proposes a new strategy to boost redistribution support, by prompting focus on similarity (vs. dissimilarity). Four studies conducted with U.S. participants online (sampled at approximately 150 per condition in Studies 1A, 1B, and 3, and 250 participants per condition in Study 2) show that similarity (vs. dissimilarity) focus increases redistribution support. This is because focusing on similarity (vs. dissimilarity) boosts the perception that people are similar in dispositional inputs (hard work, motivation), which, in turn, weakens the justification of dissimilar outcomes and the perceived fairness of the unequal wealth distribution. The findings support the view that redistribution preferences and beliefs that justify them can be malleable, and they contribute to the emerging literature on using external manipulations to shift redistribution support.

Wealth inequality in the U.S. has risen to unprecedented levels in recent years, ushering in a debate about its role in the volatile economy and the wellbeing of the middle class (Keister & Moller, 2000; Pew Research Center, 2015; Piketty, 2011). Although many believe that the current level of inequality is unacceptable, public support for redistributive policies is not commonplace (Bartels, 2005; Jost & Hunyady, 2005).

Past research documented significant differences in redistribution preferences across groups: support for redistribution is weaker among people with high socioeconomic status (SES) than those with low SES, among conservatives than liberals, and in the U.S. than in other Western countries (Alesina & Angeletos, 2005; Alesina & La Ferrara, 2005; Bénabou & Tirole, 2006; Brown-Iannuzzi, Lundberg, Kay, & Payne, 2014; Frank, Wertenbroch, & Maddux, 2015; Kraus, Piff, & Keltner, 2009; Zimmerman & Reyna, 2013). These differences are, to a large extent, attributed to diverging beliefs that individuals hold, or adopt, about the fairness of dissimilar outcomes and of the unequal wealth distribution (Brown-Iannuzzi et al., 2014; Dawtry, Sutton, & Sibley, 2015; Frank et al., 2015). Whereas resistance to redistribution (e.g., among high-SES individuals) is linked to the belief that unequal outcomes and wealth distribution are fair because they reflect individual differences in hard work, support for redistribution (e.g., among low-SES individuals) is linked to the opposite belief that unequal outcomes and distribution are unjustified (Alesina & Angeletos,

2005; Bénabou & Tirole, 2006; Fong, 2001; Frank et al., 2015; Zimmerman & Reyna, 2013). These differences are further exacerbated by individuals' tendency to sample incomes from their immediate social environments and the resulting skewed perceptions of the income distribution (Dawtry et al., 2015; Norton & Ariely, 2011). Importantly, prior studies reported that redistribution preferences are deeply engrained within individuals' views and are therefore resistant to external influence (Kuziemko, Norton, Saez, & Stantcheva, 2015).

However, recent studies have suggested that support for redistribution can sometimes be shifted through external manipulations. Chow and Galak (2012) experimentally boosted redistribution support by framing inequality in terms of how much richer the rich are than the poor (vs. how much poorer the poor are than the rich), which led those with the inherent belief in the fairness of dissimilar outcomes to question the legitimacy of rich people's advantage. Brown-Iannuzzi et al. (2014) boosted individuals' support for redistribution by inducing low (vs. high) subjective status, which prompted individuals to adopt the view that their low (vs. high) status was unjustified (vs. justified). Such manipulations can have significant implications for policy makers who wish to boost support for redistributive policies.

The present research suggests a new strategy to increase support for redistribution – prompting similarity (vs. dissimilarity) focus. We propose that focusing on similarity (vs. dissimilarity) increases redistribution support because it boosts individuals' perceptions of how

similar people are in dispositional inputs (hard work and motivation), which, in turn, lowers the justification of people's dissimilar outcomes and the perceived fairness of the unequal wealth distribution.

1. The effect of similarity (vs. dissimilarity) focus

Prior work showed that preferences for redistribution are determined, to a large extent, by the degree to which individuals believe that success is determined by hard work (rather than luck) and that inequality is fairly reflective of individual qualities (Alesina & Angeletos, 2005; Fong, 2001; Frank et al., 2015). Opponents of redistribution view the unequal wealth distribution as fair and dissimilar individual outcomes as justified because they reflect legitimate differences in individuals' hard work, whereas proponents of redistribution view the unequal wealth distribution as unfair and dissimilar individual outcomes as unjustified because individuals may be similar in their dispositional inputs (how hard they work) but have varying degrees of luck or opportunity (Alesina & La Ferrara, 2005; Fong, 2001; Frank et al., 2015). Hence, an important source of differences in redistribution preferences is the extent to which individuals think that people are similar (or dissimilar) in their dispositional inputs, which, in turn, informs judgments of how justified people's dissimilar outcomes are and how fair the resulting wealth inequality is.

We predict that focusing on similarity (vs. dissimilarity) in an unrelated task will boost perceptions of similarity of individuals' dispositional inputs in the social environment. This is because, according the Selective Accessibility Model (Mussweiler & Strack, 1999; Strack & Mussweiler, 1997), when making comparisons, individuals selectively generate information that tests, and seeks to confirm, the hypothesis that the target is similar or dissimilar to the reference. When similarity (vs. dissimilarity) focus is induced in an unrelated task (e.g., by listing similarities vs. dissimilarities between pictures, Markman & Gentner, 1997), individuals engage in similarity (vs. dissimilarity) testing, which produces assimilation (vs. contrast) of the target to the reference (Mussweiler, 2001; Mussweiler, Rüter, & Epstude, 2004). For example, after similarity (vs. dissimilarity) focus was prompted in a picture task, people assimilated (vs. contrasted) judgments of their social life to that of a hypothetical person (Mussweiler, 2001), and estimated a numeric stimulus such as the height of Mount Everest to be more (vs. less) similar to a previously encountered anchor (Chaxel, 2014; Mussweiler, 2002).

We expect that, when prompted to judge the social environment (individuals comprising the socioeconomic system) while choosing their preferred level of redistribution, people with similarity (vs. dissimilarity) focus will perceive greater similarity among individuals. Specifically, similarity focus will boost the perceived similarity of individuals' dispositional inputs, rather than their other dimensions such as external circumstances or outputs (wealth or income), because dispositional attributions of individual outcomes are automatic and dominant, whereas external attributions require extra time and cognitive resources (Gilbert & Jones, 1986; Gilbert, Krull, & Pelham, 1988; Kestemont, Vandekerckhove, Ma, Van Hoeck, & Van Overwalle, 2013). For example, admission officers attributed students' high grades to their intellectual ability and discounted the role of favorable conditions such as grade inflation at students' home institutions (Moore, Swift, Sharek, & Gino, 2010).

Since the perceived similarity of individuals' dispositional qualities significantly shapes beliefs about the fairness of dissimilar outcomes and of wealth inequality, we expect that the higher perceived similarity of individuals' dispositional inputs (resulting from similarity focus) will boost support for redistribution. In other words, we predict that similarity (vs. dissimilarity) focus will boost the perceived similarity of individuals' dispositional inputs, which will, in turn, weaken the justification of dissimilar outcomes and lower the perceived fairness of the unequal wealth distribution. This will ultimately boost support for redistribution. Four studies test this hypothesis. Study 1A tests the

effect of similarity focus on support for redistributive taxes. Study 1B tests this effect on support for redistributive spending policies. Study 2 tests the psychological process. Study 3 tests whether the effect holds with a practical manipulation of similarity focus. We report all measures, manipulations, and exclusions.

2. Study 1A: support for redistributive tax policies

Study 1A tested the effect of similarity focus (vs. dissimilarity focus or no focus) on support for redistributive taxes. We expected redistribution support to be higher in the similarity condition than in the dissimilarity condition. We also expected the dissimilarity condition to not differ from the control (no focus) condition, because in Western cultures where our studies were set, the need for individual uniqueness is ubiquitous and inferences of individuals' distinctiveness, or dissimilarity, from others are central to people's baseline perceptions of self and others (Brewer, 1991; Wong & Ahuvia, 1998). Notably, additional differences between the dissimilarity and control conditions may emerge in other cultures.

2.1. Method

The G*Power 3 program (Faul, Erdfelder, Lang, & Buchner, 2007) identified that we needed a sample size of 150 to detect a medium effect size of f = 0.25 with sufficient power (1-β > 0.80). We recruited 456 U.S. participants (M_{age} = 33, 53% female) online (on Amazon Mechanical Turk) for financial compensation. The data collection goal was set at obtaining a larger sample of approximately 150 participants in each condition to ensure sufficient power in an online, non-laboratory environment (Goodman & Paolacci, 2017; Simcox & Fiez, 2014).

To manipulate similarity focus, we adopted a procedure from Mussweiler (2002). Participants saw two black-and-white pictures (Markman & Gentner, 1997), and they listed the similarities between pictures (similarity focus condition), dissimilarities between pictures (dissimilarity focus condition), or they described one picture in detail (control condition, as in Chaxel, 2014).

Afterwards, participants indicated the degree to which they would support or oppose two redistributive tax policies from Chow and Galak (2012): a new tax on individuals earning more than $1 million and a new tax on individuals earning more than $5 million (from 1 = "Strongly Oppose" to 7 = "Strongly Support"; $r = 0.911$, $M = 5.53$, $SD = 1.50$).

To check whether the effect of similarity focus depends on political ideology, we included a 7-item scale of ideology (Nail, McGregor, Drinkwater, Steele, & Thompson, 2009), in which participants indicated support for capital punishment, abortion*, gun control, socialized healthcare*, same-sex marriage*, illegal immigration*, and Democrats* (* marks reverse-scaled items; from 1 = "Strongly Against" to 9 = "Strongly Favor"; high scores indicated conservatism; $\alpha = 0.84$, $M = 4.55$, $SD = 1.93$). We also included a single-item scale of ideology (Jost, 2006; from 1 = "Extremely Liberal" to 9 = "Extremely Conservative"; $M = 4.44$, $SD = 2.09$).

2.2. Results

All 456 participants indicated support for a $1 million tax, and 455 indicated support for a $5 million tax. We averaged support across two tax policies into an index of redistribution support.

An ANOVA on the index of redistribution support with focus (similarity vs. dissimilarity vs. control) as a fixed factor revealed a significant effect of focus, $F(2, 453) = 5.313$, $p = 0.005$, $\eta_p^2 = 0.023$. Similarity focus significantly boosted redistribution support ($M = 5.84$, $SD = 1.27$) over dissimilarity focus ($M = 5.43$, $SD = 1.59$, simple contrast $p = 0.019$, Cohen's $d = 0.14$) and the control condition ($M = 5.31$, $SD = 1.56$, $p = 0.002$, $d = 0.18$). Redistribution support

Table 1
Studies 1A-3: Regression results (coefficient estimates and standard errors).

	Study 1A	Study 1A[a]	Study 1B	Study 2	Study 3
Similarity	0.45***	0.40**	0.63***	0.19**	0.31**
	(0.16)	(0.16)	(0.23)	(0.10)	(0.14)
Dissimilarity	0.04	0.08	–	–	–
	(0.16)	(0.17)	–	–	–
Ideology	− 0.31***	− 0.25***	–	–	–
	(0.03)	(0.03)	–	–	–
Economic	–	–	–	− 0.03***	–
	–	–	–	(0.003)	–
Social	–	–	–	− 0.006**	–
	–	–	–	(0.002)	–
SES	–	–	–	− 0.10*	–
	–	–	–	(0.05)	–
Similarity × ideology	− 0.02	− 0.05	–	–	–
	(0.08)	(0.08)	–	–	–
Dissimilarity × ideology	− 0.05	− 0.01	–	–	–
	(0.08)	(0.08)	–	–	–
Similarity × economic	–	–	–	0.004	–
	–	–	–	(0.006)	–
Similarity × social	–	–	–	0.003	–
	–	–	–	(0.005)	–
Similarity × SES	–	–	–	− 0.15	–
	–	–	–	(0.11)	–
CONSTANT	5.52***	5.52***	7.05***	5.61***	5.81***
	(0.06)	(0.07)	(0.11)	(0.05)	(0.07)

The dependent variable is redistribution preferences. (In Study 1A it is support for two tax policies on a 7-point scale. In Study 1B it is support for three spending policies on a 9-point scale. In Studies 2 and 3 it is support for two tax and three spending policies on a 7-point scale.)
SIMILARITY is similarity focus. (In Study 1A it is a binary variable equal to 0.66 in the similarity focus condition and − 0.33 in the dissimilarity focus and control conditions. In Studies 1A, 2, and 3 it is a binary variable equal to 0.5 in the similarity focus condition and − 0.5 in the dissimilarity focus condition.)
DISSIMILARITY is dissimilarity focus. (In Study 1A it is a binary variable equal to 0.66 in the dissimilarity focus condition and − 0.33 in the similarity focus and control conditions.)
IDEOLOGY is political ideology. (The first column presents Study 1A results with a 7-item political ideology scale, measured on a 9-point scale. The second column presents Study 1A results with a single-item political ideology scale measured on a 9-point scale.)
ECONOMIC is economic political ideology, measured on a 100-point scale.
SOCIAL is social political ideology, measured on a 100-point scale.
SES is measured socioeconomic status, measured on a 5-point scale.
[a] Denotes Study 1A results with a single-item scale of political ideology.
*** Denotes a significant coefficient at $p < 0.01$.
** Denotes $p < 0.05$.
* Denotes $p < 0.10$.

did not differ between the dissimilarity focus and control conditions ($p = 0.456$, $d = 0.08$).

To test whether the effect of similarity focus depended on political ideology, we regressed the index of redistribution support on two dummy variables for focus [similarity focus dummy (coded as 0.66 in the similarity condition, − 0.33 in the remaining two conditions) and dissimilarity focus dummy (0.66 in the dissimilarity condition, − 0.33 in the remaining two conditions), the control condition served as the baseline for comparison], mean-centered political ideology, and the interaction of ideology with each focus dummy.

Table 1 provides regression coefficient estimates obtained in each study. Analyses with the multi-item ideology scale revealed a significant positive coefficient of the similarity dummy ($b = 0.45$, $SE = 0.16$, $t = 2.816$, $p = 0.005$, 95% CI = [0.14, 0.76]) and a non-significant coefficient of the dissimilarity dummy ($b = 0.04$, $SE = 0.16$, $t = 0.241$, $p = 0.810$, 95% CI = [− 0.28, 0.35]), confirming that similarity focus boosted redistribution support over the control condition, whereas dissimilarity focus did not. Redistribution support was also negatively predicted by political conservatism ($b = − 0.31$, $SE = 0.03$, $t = − 9.391$, $p < 0.001$, 95% CI = [− 0.38, − 0.25]). The interactions of ideology with the focus dummies were non-significant ($|t|$'s < 0.658, p's > 0.509). Hence the effect of similarity focus was not contingent upon political ideology. Analyses with the single-item scale of ideology yielded similar results (see Table 1).

2.3. Discussion

Study 1A confirmed that inducing similarity focus (vs. dissimilarity

focus or no focus) increases support for redistributive taxes, and that this effect is independent of political ideology.

3. Study 1B: support for redistributive spending policies

Study 1B tested whether similarity focus can increase support for redistributive spending policies that lift up the poor, beyond redistributive tax policies that tax the rich.

3.1. Method

As in Study 1A, participants saw two pictures, and they listed the similarities or dissimilarities between pictures. Since the control condition in Study 1A yielded similar results as the dissimilarity condition, Study 1B did not have a control condition. The G*Power 3 program showed that a sample size of 120 was needed to detect a medium effect size of f = 0.25 with sufficient power (1-β > 0.80). We recruited 331 U.S. participants ($M_{age} = 38$, 53% female) online (on Amazon Mechanical Turk) for financial compensation, with the goal to obtain approximately 150 responses per condition, as in Study 1A.

After completing the picture task, participants indicated their support (from 1 = "Strongly Support" to 9 = "Strongly Oppose") for three redistributive spending policies that would benefit the poor: expanding programs that would improve their economic opportunities such as training, expanding programs that would improve their living standards through better access to healthcare and education, and investing in initiatives that would improve their public services ($\alpha = 0.95$, $M = 2.92$, $SD = 2.09$).

3.2. Results

We reverse-coded the three items measuring support for redistributive spending (so that high values would represent strong support), and we averaged these items into an index of redistribution support. A UNIANOVA on this index with similarity (vs. dissimilarity) focus as a fixed factor revealed a significant effect of focus, $F(1, 329) = 7.585$, $p = 0.006$, $\eta_p^2 = 0.023$. Similarity focus increased redistribution support ($M = 7.37$, $SD = 1.90$) over dissimilarity focus ($M = 6.74$, $SD = 2.24$, $d = 0.30$). A regression analysis corroborated these findings (Table 1).

3.3. Discussion

Study 1B confirmed that similarity focus increases support for redistributive spending.

4. Study 2: psychological process

4.1. Method

Study 2 tested the psychological process behind the effect of similarity (vs. dissimilarity) focus. Participants listed the similarities or dissimilarities between two pictures. The G*Power 3 program identified that a sample size of 118 was needed to detect a medium effect size of f = 0.25 with sufficient power (1-β > 0.80). However, we collected a significantly larger sample than required and than that used in Studies 1A and 1B, because we sought to disentangle among multiple potentially related measures in mediating the effect of similarity, and this process requires a larger sample (Fritz & MacKinnon, 2007). We recruited 518 U.S. participants (M_{age} = 35, 49% female) online (on Amazon Mechanical Turk and Prolific Academic) for financial compensation, with the goal to obtain approximately 250 participants per condition.

After completing the picture task, participants indicated their support for the two tax policies and the three spending policies used in Studies 1A and 1B (from 1 = "Strongly Oppose" to 7 = "Strongly Support," $\alpha = 0.87$, $M = 5.59$, $SD = 1.31$). They then completed several scales tapping into the underlying mechanism, in random order (all except one measured on a scale from 1 to 7, see the Appendix). The Appendix lists the measures used in Study 2.

Our hypothesis was that similarity (vs. dissimilarity) focus increases redistribution support because it boosts the perceived similarity of individuals' *dispositional inputs*, which, in turn, weakens the *justification of individuals' dissimilar outcomes* and lowers the *perceived fairness of the unequal wealth distribution*. To test this process, we measured the perceived similarity of dispositional inputs (2 items: hard work, motivation; $r = 0.74$, $M = 3.57$, $SD = 1.57$), just-world beliefs which capture the belief that individuals' dissimilar outcomes are justified (4 items: e.g., "People who get 'lucky breaks' have usually earned their good fortune," Rubin & Peplau, 1975; $\alpha = 0.78$, $M = 3.42$, $SD = 1.23$), and the perceived fairness of the wealth distribution (2 items: e.g., "To what extent do you feel that incomes are distributed fairly or unfairly across the U.S. population?" Dawtry et al., 2015; $r = 0.85$, $M = 2.23$, $SD = 1.43$).

We included additional measures to test alternative explanations. First, it is possible that similarity focus affects the perceived similarity of *external circumstances* (2 items: luck, opportunity; $r = 0.62$, $M = 3.25$, $SD = 1.45$) or individuals' *outputs* (2 items: income, wealth; $r = 0.86$, $M = 2.23$, $SD = 1.43$). Next, it is possible that similarity focus changes perceptions of *self-interest* (personal gain) from redistribution (3 items; $\alpha = 0.89$, $M = 4.38$, $SD = 1.63$). Furthermore, it is possible that similarity focus influences the perceived *subjective inequality* in society (Dawtry et al., 2015; a Gini index was computed for each participant using their estimates of the average income level earned by people in each quintile of the income distribution, the Appendix reports

the scale and the computation method; $M = 0.38$, $SD = 0.16$). Finally, it is possible that similarity focus changes people's belief in the *equality principle* that all individuals are entitled to equal rewards regardless of their individual contributions (Deutsch, 1975; $M = 3.14$, $SD = 1.68$).

To test whether the effect of similarity focus was contingent upon individuals' economic or social ideology, we measured economic and social conservatism (Everett, 2013; economic conservatism included attitudes toward fiscal responsibility, business, limited government, gun ownership, welfare benefits*; $\alpha = 0.71$, $M = 54.08$, $SD = 19.96$; and social conservatism included attitudes toward abortion*, family unit, religion, traditional marriage, traditional values, patriotism, military, national security; $\alpha = 0.88$, $M = 54.53$, $SD = 24.50$; both scales ranged from 0 = "Very Negative" to 100 = "Very Positive"; * marks reverse-scaled items). To test if the effect depended on SES, we measured SES (from 1 = "high class" to "5 = "low class"; $M = 3.61$, $SD = 0.90$), which was reverse-coded for the analyses (so that high values would denote high status).

4.2. Results

4.2.1. Effect of similarity focus on redistribution support

All 518 participants completed the redistribution support items, 517 participants completed the measure of external circumstances, 514 completed the equality principle measure, and 516 completed the remaining measures. We averaged support across five redistributive policies into an index of redistribution support. A UNIANOVA on this index with similarity (vs. dissimilarity) focus as a fixed factor revealed a significant effect of focus, $F(1, 516) = 7.018$, $p = 0.008$, $\eta_p^2 = 0.013$: similarity focus led to significantly higher support for redistribution ($M = 5.74$, $SD = 1.27$) than dissimilarity focus ($M = 5.43$, $SD = 1.43$, Cohen's $d = 0.23$).

To check if this effect was contingent upon economic ideology, social ideology, or SES, we regressed the index of redistribution support on focus (coded as 0.5 for similarity, -0.5 for dissimilarity), mean-centered measures of economic ideology, social ideology, and SES, as well as their interactions with focus. Redistribution support was significantly positively predicted by similarity (vs. dissimilarity) focus ($b = 0.19$, $t = 2.012$, $p = 0.045$, 95% CI = [0.005, 0.38]), negatively predicted by economic conservatism ($b = -0.032$, $t = 10.704$, $p < 0.001$, 95% CI = [-0.038, -0.026]), social conservatism ($b = -0.006$, $t = -2.479$, $p = 0.013$, 95% CI = [-0.011, -0.001]), and marginally significantly predicted by SES ($b = -0.10$, $t = -1.884$, $p = 0.060$, 95% CI = [-0.205, 0.004]). All coefficients of interactions were non-significant ($|t|$s < 1.379, p's > 0.168). Hence the effect of similarity focus was not contingent upon economic ideology, social ideology, or SES.

4.2.2. Underlying process

Table 2 displays the correlations among all mediators, mediators' correlations with redistribution support, the effect of similarity focus on each mediator, and Model 4 results (from the Process command in SPSS; Hayes, 2013) showing the role of each mediator in mediating the effect of similarity focus on redistribution support.

To examine the underlying process, we first tested the effect of similarity (vs. dissimilarity) focus on each mediator. Similarity (vs. dissimilarity) focus influenced the hypothesized process elements – dispositional inputs, just-world beliefs (denoting justification of dissimilar outcomes), and distribution fairness. Specifically, similarity (vs. dissimilarity) focus marginally significantly increased the perceived similarity of dispositional inputs, $F(1, 514) = 3.423$, $p = 0.065$ ($M = 3.69$, $SD = 1.61$ vs. $M = 3.44$, $SD = 1.50$, respectively, $d = 0.16$); it significantly lowered just-world beliefs, $F(1, 514) = 5.027$, $p = 0.025$ ($M = 3.31$, $SD = 1.24$ vs. $M = 3.55$, $SD = 1.21$, respectively, $d = -0.20$); and it significantly lowered perceived distribution fairness, $F(1, 514) = 4.455$, $p = 0.035$ ($M = 2.75$, $SD = 1.48$ vs. $M = 3.04$, $SD = 1.56$, respectively, $d = -0.19$). In contrast, simi-

Table 2
Study 2 mediators: Correlations, effect of similarity (vs. dissimilarity) focus on each mediator, and indirect effect of similarity (vs. dissimilarity) focus on redistribution support through each mediator.

Variables	1	2	3	4	5	6	7	8	Effect of focus F and p values	Model 4 mediation Indirect effect a, SE, 95% CI
1. Redistribution support (N = 518)	1								$F(1, 516) = 7.018$ $p = 0.008$	
2. Dispositional inputs[a] (N = 516)	0.270***	1							$F(1, 514) = 3.423$ $p = 0.065$	$a = 0.0560$, SE $= 0.0322$ 95% CI $= [0.0011, 0.1281]$
3. Just world beliefs[a] (N = 516)	−0.418***	−0.140***	1						$F(1, 514) = 5.027$ $p = 0.025$	$a = 0.1058$, SE $= 0.0501$ 95% CI $= [0.0145, 0.2119]$
4. Distribution fairness[a] (N = 516)	−0.585***	−0.158***	0.609***	1					$F(1, 514) = 4.455$ $p = 0.035$	$a = 0.1407$, SE $= 0.0685$ 95% CI $= [0.0141, 0.2839]$
5. External circumstances (N = 517)	−0.315***	0.114***	0.603***	0.502***	1				$F(1, 515) = 0.845$ $p = 0.358$	$a = 0.0330$, SE $= 0.0373$ 95% CI $= [−0.0350, 0.0110]$
6. Individual outputs (N = 516)	−0.222***	0.289***	0.358***	0.464***	0.446***	1			$F(1, 514) = 1.139$ $p = 0.286$	$a = 0.0267$, SE $= 0.0270$ 95% CI $= [−0.0214, 0.0860]$
7. Self-interest (N = 516)	0.453***	0.268***	−0.290***	−0.388***	−0.163***	−0.051	1		$F(1, 514) = 3.400$ $p = 0.066$	$a = 0.0949$, SE $= 0.0533$ 95% CI $= [−0.0037, 0.2055]$
8. Subjective inequality (N = 516)	0.104**	−0.083*	−0.219***	−0.177***	−0.170***	−0.306***	0	1	$F(1, 514) = 1.902$ $p = 0.168$	$a = 0.0155$, SE $= 0.0146$ 95% CI $= [−0.0033, 0.0568]$
9. Equality principle (N = 514)	0.354***	0.360***	−0.204***	−0.224***	−0.057	0.150***	0.356***	−0.128***	$F(1, 512) = 0.001$ $p = 0.981$	$a = 0.0010$, SE $= 0.0409$ 95% CI $= [−0.0811, 0.0795]$

*** Denotes a correlation with $p < 0.01$.
** Denotes a correlation with $p < 0.05$.
* Denotes a correlation with $p < 0.10$.
[a] Denotes hypothesized mediators.

larity (vs. dissimilarity) focus did not influence the alternative mediators, except that it marginally significantly boosted the perceived self-interest from redistribution, $F(1, 514) = 3.400$, $p = 0.066$ ($M = 4.51$, $SD = 1.59$ vs. $M = 4.25$, $SD = 1.66$, respectively, $d = 0.16$); for all the remaining alternative mediators, F's < 1.903, p's > 0.167.

Next, we tested the role of each mediator in mediating the effect of similarity (vs. dissimilarity) focus on redistribution support by conducting a Model 4 analysis for each mediator using the Process command in SPSS (Hayes, 2013). Each of the three hypothesized process elements mediated the effect similarity (vs. dissimilarity) focus on redistribution support (indirect effect: $a = 0.0560$, $SE = 0.0322$, 95% CI $= [0.0011, 0.1281]$ for dispositional inputs; $a = 0.1058$, $SE = 0.0501$, 95% CI $= [0.0145, 0.2119]$ for just-world beliefs; and $a = 0.1407$, $SE = 0.0685$, 95% CI $= [0.0141, 0.2839]$ for distribution fairness). In contrast, none of the alternative mediators mediated the effect of similarity (vs. dissimilarity) focus on redistribution support ($a = 0.0330$, $SE = 0.0373$, 95% CI $= [−0.0350, 0.0110]$ for external circumstances; $a = 0.0267$, $SE = 0.0270$, 95% CI $= [−0.0214, 0.0860]$ for individual outputs; $a = 0.0949$, $SE = 0.0533$, 95% CI $= [−0.0037, 0.2055]$ for self-interest; $a = 0.0155$, $SE = 0.0146$, 95% CI $= [−0.0033, 0.0568]$ for subjective inequality; $a = 0.0010$, $SE = 0.0409$, 95% CI $= [−0.0811, 0.0795]$ for the equality principle). This indicated that the hypothesized mediators (perceptions of dispositional inputs, just-world beliefs and distribution fairness), and not the alternative ones, drove the effect of similarity focus.

To test our hypothesis that similarity focus increases redistribution support because it boosts the perceived similarity of dispositional inputs, which, in turn, lowers the justification of dissimilar individual outcomes and the perceived fairness of the unequal distribution, we conducted a Model 6 (serial mediation) analysis with perceptions of dispositional inputs, just-world beliefs, and distribution fairness as sequential mediators. The hypothesized serial mediation model was significant ($a = 0.0085$, $SE = 0.0060$, 95% CI $= [0.0005, 0.0259]$), thereby confirming the hypothesized psychological process. Fig. 1 illustrates the causal chain.

Model 6 results showed that a one-step mediation model including the perceived similarity of dispositional inputs as the sole mediator ($a = 0.0374$, $SE = 0.0225$, 95% CI $= [0.0012, 0.0922]$), and a two-step model that included just-world beliefs and distribution fairness as serial mediators ($a = 0.0689$, $SE = 0.0347$, 95% CI $= [0.0057, 0.1428]$) were also significant. This shows that dispositional inputs and justifications of inequality (embodied by the combination of just-world beliefs and distribution fairness beliefs) are also individually important in facilitating the similarity effect.

4.3. Discussion

Study 2 showed that focusing on similarity (vs. dissimilarity) boosts support for redistribution because it enhances perceptions that people are similar in dispositional inputs (hard work, motivation), which, in turn, weakens beliefs that dissimilar outcomes are justified and that the unequal wealth distribution is fair. The study also ruled out alternative explanations related to perceptions of external circumstances, outputs, self-interest, subjective inequality, and belief in the equality principle. Finally, Study 2 showed that the effect of similarity focus is not contingent upon economic ideology, social ideology, or SES.

While Studies 1A-2 uncovered the robust effect of similarity focus using an established manipulation from the literature (Mussweiler, 2002), it will be useful to verify that the effect holds with a more practically relevant similarity manipulation that can be used by policy makers.
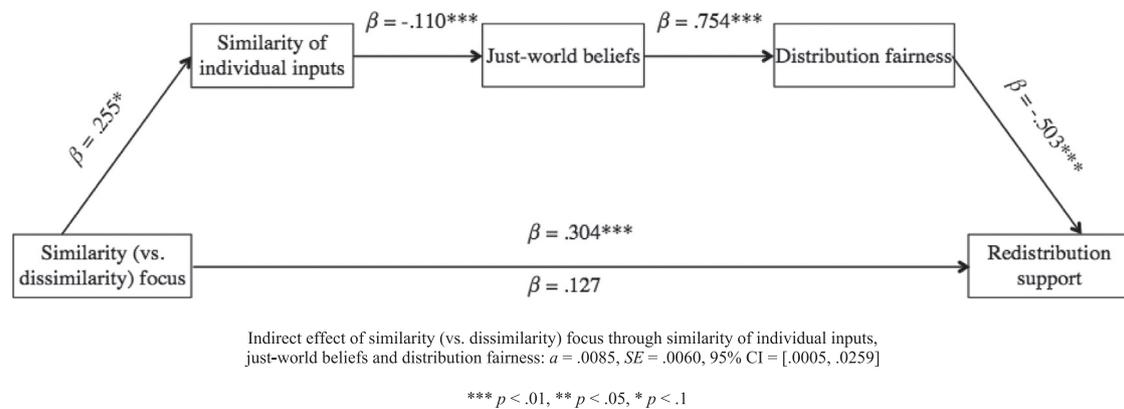
Indirect effect of similarity (vs. dissimilarity) focus through similarity of individual inputs, just-world beliefs and distribution fairness: $a = .0085$, $SE = .0060$, 95% CI = [.0005, .0259]

*** $p < .01$, ** $p < .05$, * $p < .1$

Fig. 1. Study 2: Hypothesized serial mediation model.

5. Study 3: practical manipulation of similarity (vs. dissimilarity) focus

5.1. Method

Study 3 sought to test whether the effect of similarity focus would hold with a practical version of the similarity focus manipulation. To achieve this goal, instead of asking people to compare two black-and-white pictures, we asked U.S. participants to list all the ways in which they were similar to or different from other Americans, since such a prompt could potentially be adopted by policy makers who wish to influence redistribution preferences. The G*Power 3 program identified that a sample of 118 was required to detect a medium effect size of $f = 0.25$ with sufficient power (1-$\beta > 0.80$). We recruited 349 U.S. participants ($M_{age} = 32$, 55% female) online (on Amazon Mechanical Turk and Prolific Academic) for financial compensation, with the goal to obtain 150 participants in each condition, like in Studies 1A and 1B.

After completing the similarity (vs. dissimilarity) focus manipulation, participants indicated their support (from 1 = "Strongly Oppose" to 7 = "Strongly Support") for the two redistributive tax policies and the three redistributive spending policies used in prior studies ($\alpha = 0.87$, $M = 5.83$, $SD = 1.18$).

5.2. Results and discussion

We averaged support across five policies into an index of redistribution support. A UNIANOVA on this index with similarity (vs. dissimilarity) focus as a fixed factor revealed a significant effect of focus, $F(1, 347) = 4.864$, $p = 0.028$, $\eta_p^2 = 0.014$: similarity focus led to stronger redistribution support ($M = 5.97$, $SD = 1.14$) than dissimilarity focus ($M = 5.69$, $SD = 1.21$, Cohen's $d = 0.24$). A regression analysis corroborated these findings (Table 1). Study 3 results indicated that our findings might inform policy makers about the types of policies (e.g., communication campaigns) that could potentially shift redistribution support. Boosting people's perception of how similar they are to their fellow citizens may, at least temporarily, boost support for redistributive policies.

6. General discussion

This research proposes a new strategy – prompting similarity (vs. dissimilarity) focus – to increase support for redistribution. Similarity (vs. dissimilarity) focus shifts redistribution preferences by boosting perceptions that people are similar in dispositional inputs, which, in turn, weakens the justification of people's dissimilar outcomes and the perceived fairness of the unequal wealth distribution. This effect is robust across redistributive tax and spending measures, a theoretical manipulation of similarity focus from the literature, as well as a practical manipulation of similarity focus that policy makers who wish

to shift public redistribution preferences could adopt.

Our findings contribute to the view that redistributive preferences (and beliefs that justify them) can be malleable, and they add to the emerging evidence on external manipulations that can change redistribution support.

Furthermore, our findings contribute to prior research that reported lower redistribution support in areas with high racial fragmentation (Alesina, Baqir, & Easterly, 1999; Easterly & Levine, 1997). Past research argued that racial fragmentation erodes support for redistributive measures that help the poor, because it feeds stereotypes (that poor segments, often comprised of minorities, have unfavorable characteristics, Dahlberg, Edmark, & Lundqvist, 2012; Senik, Stichnoth, & Van der Straeten, 2009), and because it boosts individuals' loyalty toward their own racial group (Habyarimana, Humphreys, Posner, & Weinstein, 2007; Luttmer, 2001). These explanations focused on the role of group membership (benefits vs. costs of redistribution to in-groups vs. out-groups) rather than the cognitive focus on similarity, and they drew on data that inferred group membership based on the measured overlap among individuals on inherent characteristics such as race. Our findings contribute to this stream of research by showing that the mere cognitive focus on similarity or dissimilarity, which individuals may adopt in homogeneous versus fragmented social contexts, may also play a role. Furthermore, our findings suggest that similarity effects can be experimentally induced.

Finally, by showing that similarity focus can shift individuals' just-world beliefs, our findings contribute to research on just-world beliefs, which previously reported how resistant these beliefs can be to external manipulations (Callan, Harvey, Dawtry, & Sutton, 2013).

While the present research identified the basic (main effect) level at which the effect of similarity focus operates, it is likely that similarity focus has higher-order, interactive effects on redistributive preferences. For example, Study 2 showed that participants' measured SES does not moderate the effect of similarity focus. However, it is possible that making individuals' low (vs. high) relative position *explicitly salient* with an external manipulation would moderate the similarity effect, for example, by highlighting the similarity of outputs (wealth, income) within individuals' salient social environment. This could result in a positive effect of similarity focus on redistribution support when low status is primed, but a *negative* similarity effect when high status is primed. In other words, the effect of similarity focus on redistribution support may operate at multiple levels, highlighting different inferences as a function of additional manipulations that are present in the environment (additional manipulations were absent in this paper). It will be important for future research to unpack the potential higher-order effects of similarity focus.

More broadly, it will be useful for future research to establish the boundaries of the similarity effect. For example, it will be interesting to test if manipulating the actual similarity of individuals' dispositional inputs can moderate the effect of similarity focus and to corroborate the

mechanism underlying the similarity effect with a moderation approach.

Finally, while Study 3 showed that the similarity effect generalizes to one practical manipulation of similarity focus (when individuals think of similarities or dissimilarities between themselves and their fellow citizens), it will be useful for future research to test the effectiveness of additional similarity cues in shaping redistribution attitudes. For example, prior work has shown that similarity testing is more likely to occur when individuals evaluate a social category (e.g., superhero) rather than an exemplar (e.g., Superman) (Nelson & Norton, 2011). It will be interesting to test if evaluating a social category (e.g., other Americans, rich people) versus an exemplar (e.g., Joe the typical American, Bill Gates) changes redistribution preferences.

The present paper uncovers a new cognitive factor — similarity focus — that increases support for redistribution. The findings contribute to the view that preferences for redistribution can be shaped by external manipulations independently of known socioeconomic predictors such as political ideology, and they suggest that policy makers can use such manipulations to shift public support for redistribution. We hope this research will inspire future work on the role of external manipulations in distributive justice.

Appendix A. Measures collected in Study 2

A.1. Redistribution support (Items 1 and 2 were adopted from Chow & Galak, 2012, and they were also used in Studies 1A and 3. Items 3, 4, and 5 were also used in Studies 1B and 3)

Please indicate to what extent you would support or oppose [from 1 = "Strongly Oppose" to 7 = "Strongly Support" with 4 = "Neither Oppose nor Support" as the midpoint]:

1. Creating a new tax bracket for incomes over $1 million.
2. Creating a new tax bracket for incomes over $5 million.
3. Expanding programs and initiatives that improve the economic opportunities of low-income people (e.g., training).
4. Expanding programs and initiatives that improve the living standards (e.g., access to healthcare, education) of disadvantaged groups.
5. Investing in initiatives that improve public services for low-income individuals.

A.2. Similarity of individuals' dispositional inputs

[from 1 = "Very Dissimilar" to 7 = "Very Similar"]

1. To what extent do you think people are similar or dissimilar in how hard they work (i.e. how much effort they expend)?
2. To what extent do you think people are similar or dissimilar in motivation?

A.3. Just-world beliefs (from Rubin & Peplau, 1975)

Please indicate to what extent you agree with the following statements [1 = "Strongly Disagree," 2 = "Disagree," 3 = "Somewhat Disagree," 4 = "Neither Agree Nor Disagree," 5 = "Somewhat Agree," 6 = "Agree," 7 = "Strongly Agree"]:

1. By and large, people deserve what they get.
2. People who get 'lucky breaks' have usually earned their good fortune.
3. People who meet with misfortune have often brought it on themselves.
4. Many people suffer through no fault of their own.

A.4. Distribution fairness (from Dawtry et al., 2015)

1. To what extent do you feel that household incomes are distributed fairly or unfairly across the U.S. population? [from 1 = "Extremely Unfairly" to 7 = "Extremely Fairly"]
2. How satisfied or dissatisfied are you with the way in which household incomes are distributed across the U.S. population? [from 1 = "Extremely Dissatisfied" to 7 = "Extremely Satisfied"]

A.5. Similarity of individuals' external circumstances

[from 1 = "Very Dissimilar" to 7 = "Very Similar"]

1. To what extent do you think people have similar or dissimilar opportunities in life?
2. To what extent do you think people are similar or dissimilar in terms of how much luck they have in life?

A.6. Similarity of individuals' outputs

[from 1 = "Very Dissimilar" to 7 = "Very Similar"]

1. To what extent do you think people are similar or dissimilar in how much wealth they have?
2. To what extent do you think people are similar or dissimilar in how much income they earn?

A.7. Self-interest

Please indicate to what extent you agree with the following statements.
[from 1 = "Strongly Disagree" to 7 = "Strongly Agree"]:

1. To what extent do you feel that redistribution of wealth through tax and welfare is in agreement with your own financial interests?
2. To what extent do you feel that redistribution of wealth would benefit you?
3. To what extent do you feel that redistribution of wealth would improve your economic situation?

A.8. Subjective inequality (from Dawtry et al., 2015)[1]

In this question we are interested in the average household income that you think goes to each 20% of the population in the U.S. Consider each 20% of the population - from the poorest 20% to the wealthiest 20%. What is the average household income that is earned by each group of the population?

The draggable bars demonstrate the level of average total household income (in thousands of dollars). The range is between $0 and $250,000. Please drag the bar for each group (each 20% of the population) to provide your estimate of the average household income earned by the group (in thousands of US dollars).

____ Poorest 20% of the population
____ Lower-middle 20% of the population

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[1] We followed the procedure outlined in Dawtry et al. (2015) to transform participants' estimates of the average income level in each income quintile into the subjective inequality (Gini) estimate. First, we computed the total estimated societal income by summing weighted incomes across the five quintiles (the weighted income of each quintile was derived by multiplying the average income level estimate provided for each quintile by 0.2 – i.e. 20% of the total population). We computed the percentage of the total societal income owned by each quintile by dividing the weighted income of each quintile by the total societal income. We then used these percentages to derive the cumulative percentage of income owned by each ascending quintile (represented by L(x), where x represents each quintile, or 20%). We computed the area under the curves x and under L(x) for each quintile using the trapezoid method. To compute the Gini index, we summed the differences between the two areas across the five quintiles.

____ Middle 20% of the population
____ Upper middle 20% of the population
____ Richest 20% of the population

A.9. Commitment to the equality principle (based on *Deutsch, 1975*)

Please indicate to what extent you agree or disagree with the following statement.

[from 1 = "Strongly Disagree" to 7 = "Strongly Agree"]:

All people should receive equal rewards regardless of the value of their relative contributions. In other words, everyone should receive equal rewards regardless of whether their contributions exceeded or fell short of the contributions of others.

A.10. Economic political ideology (from *Everett, 2013*)

How positive or negative do you feel about each issue on the scale of 0 to 100, where 0 represents very negative, and 100 represents very positive?

[from 0 = "Very Negative" to 100 = "Very Positive"]
____ Fiscal Responsibility
____ Business
____ Limited Government
____ Gun Ownership
____ Welfare Benefits

A.11. Social political ideology (from *Everett, 2013*)

How positive or negative do you feel about each issue on the scale of 0 to 100, where 0 represents very negative, and 100 represents very positive?

[from 0 = "Very Negative" to 100 = "Very Positive"]
____ Abortion
____ The Family Unit
____ Religion
____ Traditional Marriage
____ Traditional Values
____ Patriotism
____ Military and National Security

A.12. Socio-economic status

What is your current socioeconomic status? [1 = "Upper Class," 2 = "Upper Middle Class," 3 = "Middle Class," 4 = "Lower Middle Class," 5 = "Lower Class"].

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