# Individual Differences in the Resistance to Social Change and Acceptance of Inequality Predict System Legitimacy Differently Depending on the Social Structure

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Abstract: We propose that individual differences in the resistance to social change and the acceptance of inequality can have divergent effects on legitimacy depending on the context. This possibility was tested in a sample of 27 European countries (N = 144367) and across four experiments (total N = 475). Individual differences in the resistance to social change were related to higher levels of perceived legitimacy no matter the level of inequality of the society. Conversely, individual differences in the acceptance of inequality were related to higher levels of perceived legitimacy in unequal societies, but either a relationship near zero or the opposite relationship was found in more equal societies. These studies highlight the importance of distinguishing between individual differences that make up political ideology, especially when making predictions in diverse settings. © 2017 The Authors. European Journal of Personality published by John Wiley & Sons Ltd on behalf of European Association of Personality Psychology

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Legitimacy has been defined as something that 'is in accord with the norms, values, beliefs, practices, and procedures accepted by a group' (Zelditch, 2001, p. 33). System legitimacy stems from believing that the overarching sociopolitical system is operating in accord with these accepted beliefs and practices. When a system is widely perceived as legitimate, the exercise of authority within the system is more effective because authorities and their decrees are seen as representing the shared values and goals of the populace (Tyler, 2006), who in turn have more trust and confidence in the system, perceive the system as fair and just and have greater overall satisfaction with the system (Hetherington, 1998; Tyler, 1997; Tyler & Huo, 2002). When people legitimize the system, they are more likely to follow its laws and regulations (Tyler, 1997; Tyler & Huo, 2002) and are less likely to protest against or attempt to dismantle the system (Levi & Stoker, 2000). Legitimacy also enables authorities to maintain the socio-political system without having to resort to destabilizing strategies such as excessive force, coercion and intimidation (Sidanius & Pratto, 1999; Tyler & Huo, 2002). Thus, for a system to be maintained in the long term, the system must be perceived as legitimate; however, standards of legitimacy may vary across people, resulting in differential perceptions of legitimacy. The present research will examine how individual differences along two ideological dimensions-the resistance to change

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This article earned Open Data and Open Materials badges through Open Practices Disclosure from the Center for Open Science: https://osf.io/tvyxz/wiki. The data and material are permanently and openly accessible at https://osf.io/f54qe/. Author's disclosure form may also be found at the Supporting Information in the online version. and the acceptance of inequality—are differentially associated with system legitimacy depending on the societal context.

#### Resistance to social change and acceptance of inequality

The continuum that runs between the political left and the political right has often been treated, theoretically and pragmatically, as a single dimension (e.g. Brandt, in press; Brandt, Reyna, Chambers, Crawford, & Wetherell, 2014; Graham, Haidt, & Nosek, 2009; Hibbing, Smith, & Alford, 2014; Janoff-Bulman, 2009; Jost, 2006). However, research suggests that individual differences in ideology map onto at least two dimensions (e.g. Crawford, 2012; Duckitt & Sibley, 2009; Jost et al., 2007; Kandler, Bleidorn, & Riemann, 2012; Kay & Brandt, 2016; Malka, Soto, Inzlicht, & Lelkes, 2014; Stangor & Leary, 2006): *the resistance to social change* and *the acceptance of inequality* (Jost, Glaser, Kruglanski, & Sulloway, 2003b).

The *resistance to social change* dimension represents a continuum that ranges from a preference for social change to a preference for the societal status quo. Rather than emphasizing power and social stratification, people who are resistant to social change are oriented towards maintaining the status quo and current societal practices. This dimension has been characterized as 'relatively nondirectional or content free' (Jost, Krochik, Gaucher, & Hennes, 2009, p. 182), such that resisting social change could mean the support of a variety policies depending on the specifics of the existing system and what constitutes the status quo. For example, although support for the status quo represents a left-leaning system, then those who resist

© 2017 The Authors. *European Journal of Personality* published by John Wiley & Sons Ltd on behalf of European Association of Personality Psychology This is an open access article under the terms of the Creative Commons Attribution-NonCommercial License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes. Handling editor: Dr. Markus Jokela Received 22 August 2016 Revised 6 February 2017, Accepted 13 March 2017 social change should continue to protect and promote that left-leaning system.

The other dimension, the acceptance of inequality, ranges on a continuum from opposition to inequality to the preference for, and acceptance of, inequality. Rather than emphasizing maintenance of the status quo, people who are accepting of inequality are oriented towards reinforcing power structures and social stratification. This dimension has been characterized as 'relatively more direction and content laden' (Jost et al., 2009, p. 183), such that attitudes towards a variety of policies (e.g. civil rights) can be derived from one's acceptance or rejection of inequality. For example, those who endorse inequality and social hierarchy will be more opposed to policies aimed at redistributing resources to help lower-status members of society (e.g. welfare or Affirmative Action policies; Federico & Sidanius, 2002; Sidanius & Pratto, 1999) and express prejudice towards groups that aim to attenuate hierarchy (Crawford, Mallinas, & Furman, 2015). People who oppose inequality will typically do the opposite by supporting policies that help lower-status groups and hurt higher status groups and express prejudice towards high status groups (Crawford et al., 2015).

## Associations with system legitimacy across contexts

Although the genetic, personality and motivational underpinnings of these individual differences have been explored (e.g. Jost et al., 2007; Kandler et al., 2012; Thorisdottir, Jost, Liviatan, & Shrout, 2007), the relationship between content-free and content-laden dimensions of political ideology on the support and legitimization of social systems has not been fully explored (for a discussion and historical examples, see e.g. Jost et al., 2009). This is an important omission in the empirical literature because these two dimensions of ideology imply different motives for seeing a social system as legitimate that can be distinguished by examining a range of social contexts.

Specifically, we predict that people who are motivated to resist social change are likely to legitimize whichever society they happen to be affected by because legitimate social systems are more stable and less likely to change (Levi & Stoker, 2002; Tyler, 1997; Tyler & Huo, 2002). This is consistent with work that finds that the resistance to social change is predicted by uncertainty avoidance (Jost et al., 2007). Also, when primed with a system-justifying motive (a motive that promotes the resistance to social change and the promotion of the status quo), participants were more likely to support policies that are consistent with the manipulated norms in the situation (Zhu, Kay, & Eibach, 2013). Specifically, system justification motivation (which is often conceptually related to individual differences in the resistance to social change) led to the support of more egalitarian policies when equality norms were salient and to the support of meritocratic policies when meritocracy norms were salient.

At the same time, we predict that people who accept inequality may be likely to legitimize social systems that match their preferences regarding inequality. In general, people are more likely to see authorities and institutions as legitimate when those authorities and institutions support their values, beliefs and goals (e.g. Skitka, Bauman, & Lytle, 2009; Zimmerman & Reyna, 2013). Conversely, people show signs of stress when their society contradicts their beliefs about how society should function (Eliezer, Townsend, Sawyer, Major, & Mendes, 2011; Major, Kaiser, O'Brien, & McCoy, 2007; Townsend, Major, Sawyer, & Mendes, 2010). These findings lead to the prediction that the acceptance of inequality and legitimacy will be positively associated in unequal systems because these systems support the goals of people who desire and accept inequality. Conversely, we predict a negative association between the acceptance of inequality and legitimacy in more egalitarian social systems because these systems deviate from the goals to promote social hierarchy, and in some cases actively promote the opposite.

The idea that individual differences related to the acceptance of inequality and the resistance to change might lead to different outcomes in different situations is important because these two constructs are not always clearly distinguished. For example, some researchers use measures of the acceptance of inequality (e.g. social dominance orientation) as indicators of system justification (Jost & Hunyady, 2005; Jost, Banaji, & Nosek, 2004; Jost & Thompson, 2000), a concept often associated with resisting change (Jost, 2015). Others have argued that theories such as social dominance theory, which is primarily concerned with the acceptance of inequality, subsumes research on the resistance to social change (Sidanius, Pratto, van Laar, & Levin, 2004). However, if the acceptance of inequality is an indicator of the tendency to resist change (e.g. Jost et al., 2004) or somehow subsumes the resistance to change, then one would predict that the resistance to social change and the acceptance of inequality would be redundant predictors of legitimacy and show similar effects across contexts.

The possibility of the resistance to social change and the acceptance of inequality making converging predictions in more unequal systems and diverging predictions in more egalitarian systems is an effect that would be missed by models that rely on a unidimensional representation of political ideology and/or samples from countries with higher-than-average levels of inequality (e.g. the United States). By examining the two system-relevant motivations in contexts where the status quo and inequality are less confounded, it is possible to disentangle the unique effects and dynamics of these system-relevant motivations. Crucially, it also suggests that right-wing political ideologies and their associated individual differences are not always conducive to legitimizing the status quo. For example, in more equal systems, a preference for inequality would conflict with the relatively egalitarian status quo, thereby motivating those higher in preference for inequality to oppose the system rather than legitimize it.

# Differentiating ideological motives from right-wing identification

Prior work examining identification with right-wing ideology across different contexts has shown that the acceptance of

inequality and the resistance to social change predict rightwing identification differently in Western and Eastern Europe, with the acceptance of inequality predicting rightwing identification in Western but not Eastern Europe, and the resistance to social change predicting right-wing identification twice as strongly in Western Europe than Eastern Europe (Thorisdottir et al., 2007). Given that many Eastern European systems are still rooted in left-wing philosophies and have high inequality, it makes sense that the relationship between right-wing ideology and acceptance of inequality might be weaker in these countries because inequality motives might be spread across the ideological spectrum.

This research provides a promising clue that individual differences in acceptance of inequality and resistance to social change may function differently across contexts; however, these data do not address our question. Rather than examine the association between identification with conservatism broadly and its purported constituent motives across contexts (as the prior researchers did), we are interested in the impacts of these individual ideological differences on perceptions of system legitimacy across different system structures (Jost et al., 2008). Although scholars have conflated conservative identification with ideological beliefs (Kay & Jost, 2003; Jost, 2006), recent work finds that these are conceptually and empirically distinct constructs (Ellis & Stimson, 2012) with the former behaving like any other group identification and the latter appearing less motivationally potent (Huddy, Mason, & Aarøe, 2015; Malka & Lelkes, 2010). Scholars have also linked conservative identification with system justification and legitimacy, but they do not always overlap. For example, the association between ideological identification and government trust (trust being a key component of legitimacy) depends on who is in running the government: conservatives do not trust the government when led by Democrats, and liberals do not trust government when led by Republicans (Pew Research Center, 2015). This pattern of results would not emerge if right-wing identification is nearly synonymous with perceived legitimacy and system justification. By focusing on legitimacy and it ideological and motivational underpinnings, not on identification with one side of the political spectrum or the other, we are better able to understand the role of individual differences in these core motives in perpetuating or disrupting social systems.

# **STUDY 1**

In the current studies, we test our predictions about the resistance to social change and the acceptance of inequality using representative samples from 27 European countries (Study 1) and conceptually replicate these effects with an experimental paradigm (Studies 2a–2d). We predict that there will be a main effect of individual differences in the resistance to social change on legitimacy. Those high in resistance to social change will be more likely to perceive the status quo as legitimate, regardless of the hierarchical nature of the system, compared with those low in resistance

to change. Additionally, we predict an interaction between individual differences in the acceptance of inequality and the nature of the system. We expect a positive relationship between acceptance of inequality and legitimacy in more unequal systems, but a negative relationship in more equal systems (to the degree that the system in question is truly egalitarian).

# Method

## Participants and procedure

Data from 144 367 people (47.2% men and 52.8% women;  $M_{age} = 47.2$  years, SD = 18.2) from the 27 countries who participated in the first through fifth waves of the European Social Survey (ESS) were analysed (see Table S1 for sample sizes). The ESS is a biennial survey of European countries that uses face-to-face interviews to obtain samples representative of the participating countries.<sup>1</sup>

# Measures

Three items were used to measure legitimacy, as conceptualized as trust in leaders and institutions in the society, that are similar to the items used in past research (Brandt, 2013; Tyler & Huo, 2002; Van der Toorn, Tyler, & Jost, 2011). The interviewer asked, 'Please tell me on a score of 0–10 how much you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust'. On this 11-point scale, participants indicated their trust in the country's parliament, the legal system and the police ( $\alpha = .83$ ).

The resistance to social change and the acceptance of inequality were measured with items from a short version of Schwartz's (1992) value scale. The preamble for this section reads, 'Now I will briefly describe some people. Please listen to each description and tell me how much each person is or is not like you'. To measure the resistance to social change, we used an item designed to measure traditionalism. This item reads, 'Tradition is important to her/him. She/he tries to follow the customs handed down by her/his religion or her/his family'. To measure the acceptance of inequality, we used an item designed to measure support for equality. This item reads, 'She/he thinks it is important that every person in the world should be treated equally. She/he believes everyone should have equal opportunities in life' (see Thorisdottir et al., 2007, for a similar use of these same items). Both items were measured on a 6-point scale from 1 = very much like me to 6 = not at all like me. Items were rescored so that higher scores indicated more acceptance of inequality and more support for tradition. These two measures were negatively correlated (r[144, 365] = -.13, p < .001; r's range from -.32 to-.0001 across countries).

To measure societal-level income inequality, we used the Gini index, which represents the ratio of household income held by the wealthiest portion of a region compared with the poorest portion of the region. The index can range from

<sup>&</sup>lt;sup>1</sup>For more information on the ESS, including raw data, codebooks and methodological details visit: http://www.europeansocialsurvey.org/.

0 to 100 with higher scores indicating higher levels of inequality. Values for this measure were obtained from the CIA World Factbook (2013). In this sample, the range was between 23.0 and 45.3, and on average, the countries in the current sample were more equal (M = 31.6, SD = 5.7) than the rest of the world (M = 41.9, SD = 9.7, N = 109), t(134) = 5.31, p < .001, Cohen's d = 1.30.

We included several covariates to adjust for demographic factors, including gender (1 = men, 2 = women), minority ethnic group status (1 = member of minority, 2 = member of majority), education and age.

#### **Results and discussion**

The data can be conceptualized at three levels of analysis: the individual level (Level 1), the wave of the survey level (Level 2) and the societal level (Level 3). To analyse this multi-level data, we estimated a three-level multi-level model with HLM version 7 using maximum likelihood estimation and robust standard errors (Raudenbush, Bryk, & Congdon, 2010). The model used the Gini index, the primary predictors, the relevant interactions and the demographic control variables to predict legitimacy. The individual level predictors and control variables were mean centred within each country/wave combination because we are interested in the impact of the individual level predictors on the outcome variables (Enders & Tofighi, 2007). The Gini index was grand mean centred. The model included random intercepts at the wave (SD = 0.28, p < .001) and country levels (SD = 0.92, p < .001) and included random slopes for support for tradition (SD = 0.07, p < .001), inequality values (SD = 0.05, p < .001) and the interaction (SD = 0.01, p = .01) between these two measures. Model results are in Table 1.

Consistent with predictions, more support for tradition was associated with higher levels of system legitimacy even when controlling for inequality values (the predicted main effect), and it did not interact with the Gini index. This indicates that resistance to social change is not affected by the inequality of the status quo, which is consistent with our predictions. As predicted, there was no significant main effect of inequality values, but they did significantly interact with level of inequality (the Gini index). The interaction was decomposed by reanalysing the model at  $\pm 1$  SD of the Gini index mean. In more unequal countries, the acceptance of inequality was not associated with system legitimacy (b = -0.004, SE = 0.012, p = .77), contrary to predictions. However, in more equal countries, the acceptance of inequality was significantly negatively associated with system legitimacy (b = -0.034, SE = 0.013, p = .02), consistent with predictions. To illustrate these interaction effects, we created scatter plots of the slope of inequality values on legitimacy for each country (*y*-axis) and the Gini index (*x*-axis) (Figure 1). It can be seen that in countries that have more equality, valuing inequality was more negatively



Note: Dashed-and-dotted vertical line indicates the sample mean for the Gini Index (M = 31.7). The dashed vertical line indicates the world mean for the Gini Index (M = 39.9). Original interaction effects are reported in Table 2.

Figure 1. The inequality-legitimacy slope is more negative in more equal countries (Study 1).

Table 1.	Study	1: Societal	inequality	interacts	with ine	quality	values,	but not	tradition	values	when	predicting	system	legitimacy	(Study	v 1)
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	b	SE	95% CI low	95% CI high
Gini index	-0.141	0.031	-0.202	-0.079
Inequality values	-0.019	0.011	-0.040	0.002
Tradition values	0.087	0.011	0.065	0.109
Gini index × Inequality values	0.003	0.001	0.0003	0.005
Gini index × Tradition values	-0.003	0.003	-0.008	0.002
Inequality values × Tradition values	0.004	0.004	-0.004	0.012
Gini index × Inequality values ×				
Tradition values	-0.001	0.001	-0.003	0.0004
Education	0.049	0.011	0.027	0.071
Minority	0.074	0.114	-0.149	0.298
Gender	-0.022	0.035	-0.090	0.046
Age	-0.001	0.001	-0.004	0.001
	Level 1 N = 144 367; Le	vel 2 $N = 84$ ; Level 3	<i>N</i> = 27	

Note: Boldface type highlights predicted main effect and two-way interaction.

related to legitimacy than in countries with more inequality. Countries with more inequality in this sample were more likely to have slopes near zero in our sample. This study supports the idea that individual differences in resistance to social change predict legitimacy across a range of societies, but that the relationship between individual differences in acceptance of inequality and legitimacy can vary by context. This result is not anticipated if these two dimensions are conflated or if we only would have studied a highly unequal context.<sup>2</sup>

To confirm that our results are independent of political identification, we examined additional models where rightwing identification was included as a covariate. This was a one-item measure ranging from 0 (left) to 10 (right). These models replicated the aforementioned results, with a traditionalism main effect (b = 0.07, SE = 0.01, p < .001), an acceptance of inequality x inequality interaction (b = 0.004, SE = 0.002, p = .03) and a main effect of ideological identification (b = 0.05, SE = 0.01, p < .001). An additional model found that ideological identification did not interact with inequality (b = 0.003, SE = 0.002, p = .21). This pattern of results suggests that ideological identification has a similar pattern of results as the resistance to social change but is likely conceptually distinguishable from the resistance to social change because the two constructs had independent effects on legitimacy. In summary, individual differences in core motives predict system legitimacy depending on their match with the system in question, above and beyond identification with right-wing ideology.

# **STUDIES 2A–2D**

Study 1 provided initial support for our predictions; however, it also had several limitations that we attempted to ameliorate in the second study. First, Study 1 relied on objective measures of inequality. Although this approach has its strengths, people living in those countries may not be aware of the actual level of inequality across the country. Rather than relying on the measured amount of inequality in a society and participants' perception of that inequality (perceptions that are often in error; Norton & Ariely, 2011), the following studies directly manipulated inequality for an unnamed society. Second, the lack of an association between inequality values and system legitimacy in less equal countries was unexpected (a positive association was expected). We think a plausible explanation for this outcome is that the countries in Europe are all relatively egalitarian (only three countries were higher on the Gini index than the worldwide mean). Therefore, those who seek hierarchy may not have found the less equal systems hierarchical enough and therefore may not see them as particularly

legitimate. By specifically manipulating the levels of inequality for an unnamed society, we are able to obtain participant reactions to both a highly unequal society and a significantly more equal society. Third, although the measures of the two system-relevant motivations in Study 1 were used in past research to measure these same constructs (Thorisdottir et al., 2007), they are just one-item measures that may not capture the complexity of the resistance to social change and the acceptance of inequality. Therefore, we used more complete measures of these constructs. Fourth, we expanded our measure of legitimacy from simply trust in societal institutions to broader perceptions of the legitimacy of society.

We conducted Study 2 four times with only slight variations between each version. Because the versions of Study 2 are all very similar, we will describe them together and note where they diverge. To simplify the presentation of the analyses, we combined the datasets and included a new variable 'study version' as both a main effect and as a moderator to control for the differences between studies.

# Method

## Participants

We aimed to recruit at least 50 participants per condition. Participants in Studies 2a, 2b and 2c were recruited from the Mechanical Turk of Amazon.com.

*Study 2a.* Study 2a included 162 participants. Forty-seven participants did not pass an attention check (cf. Oppenheimer, Meyvis, & Davidenko, 2009) or did not complete the primary measures<sup>3</sup> and so were not analysed, leaving a final sample of 115 (46 men, 68 women and 1 no response;  $M_{age} = 33.6$ , SD = 11.8).

*Study 2b.* Study 2b included 134 participants. Twenty-six participants did not pass an attention check or did not complete the primary measures and so were not analysed, leaving a final sample of 108 (56 men and 52 women;  $M_{\text{age}} = 31.9$ , SD = 11.4).

*Study 2c.* Study 2c included 163 participants. Thirty-eight participants did not pass an attention check or did not complete the primary measures and so were not analysed, leaving a final sample of 125 (82 men, 42 women and 1 no response;  $M_{age} = 30.2$ , SD = 11.7).

*Study 2d.* Study 2d was designed to replicate this experiment in a non-U.S. sample. This study included 132 student participants who completed the survey for partial course credit at Tilburg University, in the Netherlands. Five participants did not complete the primary measures and so were not analysed, leaving a final sample of 127 (22 men, 92 women and 13 no response<sup>4</sup>;  $M_{age} = 19.6$ , SD = 2.0). There was no attention check in this study.

<sup>&</sup>lt;sup>2</sup>Note that the significant random slopes indicate that inequality of the context does not explain all of the variance in slopes across countries. The estimated slopes for each country are in the SOM. Here we see that support for tradition is positive in two of 27 countries. Inequality values, however, are more mixed with nine countries showing positive slopes and 18 showing negative slopes.

<sup>&</sup>lt;sup>3</sup>Primary measures refer to the measures of the resistance to social change, the acceptance of inequality and perceived legitimacy.

<sup>&</sup>lt;sup>4</sup>The higher number of 'no responses' in this study was because of a glitch that linked the primary study with the demographic information that was collected as a part of a subsequent study in the same experimental session.

#### Procedure

In Studies 2a and 2b, participants completed measures of the resistance to social change and the acceptance of inequality, read about an unnamed society that was experimentally manipulated to represent high or low levels of inequality, completed measures of legitimacy and then completed demographic information. In Studies 2c and 2d, participants completed the measures of the resistance to social change and the acceptance of inequality between the measure of legitimacy and the demographic information. Studies 2a–2c were completed online. Study 2d was completed in the lab on a computer in a private cubicle.

## Experimental manipulation

Participants were randomly assigned to read about an unnamed society that was more or less unequal. In both societies, the average income was \$68200; however, the variability in the amount of wealth differed significantly. In the high-inequality society, the percentage of wealth owned by each wealth quintile was 0.1%, 0.2%, 4%, 11% and 84%. This wealth distribution is similar to the distribution in the United States, and most Americans see this distribution as unequal (Norton & Ariely, 2011). In the low-inequality society, the percentage of wealth owned by each wealth quintile was 10%, 15%, 18%, 21% and 36%, a distribution that most Americans see as relatively equal (Norton & Ariely, 2011). We used the scenarios from Mitchell and colleagues' work on hypothetical societies and judgments of social justice to guide the creation of these societies (Mitchell, Tetlock, Mellers, & Ordonez, 1993; Mitchell, Tetlock, Newman, & Lerner, 2003). Diverging from the hypothetical society paradigm, we instructed participants that the unnamed society was a real country and to '... imagine you are a current resident of Country A and are a citizen of the country. Think about Country A and how you would feel about living there'. Next to each description of the society, there was a pie chart displaying the wealth distribution. The scenarios, accompanying pie chart and all of the instructions can be found in the Supporting Information.

#### Measures

All items were measured on a 7-point scale with the following labels: disagree strongly, disagree moderately, disagree slightly, neither agree nor disagree, agree slightly, agree moderately and agree strongly. In Study 2a, participants completed seven items measuring individual differences in the resistance to social change that we created for this project (e.g. 'I would be reluctant to make any largescale changes to the social order.'). In Studies 2b-2d, the resistance to social change scale included an additional three items that were reverse scored. The items, a description of the scale's creation and the results of an initial validation study can be found in the Supporting Information. The scale was reliable in all of the studies (Study  $2a \alpha = .88$ ; Study 2b $\alpha = .88$ ; Study 2c  $\alpha = .88$ ; Study 2d  $\alpha = .72$ ). Individual differences in the acceptance of inequality were measured with the 16-item social dominance orientation scale in Studies 2a and 2b (Pratto, Sidanius, Stallworth, & Malle, 1994; Sidanius & Pratto, 1999; Study 2a  $\alpha$  = .94; Study 2b  $\alpha = .95$ ). An example item is 'Group equality should be our ideal' (reverse scored). In Studies 2c and 2d, the acceptance of inequality was measured with the four-item short social dominance orientation scale (Pratto et al., 2013) that has been validated in a variety of societies, including the United States and the Netherlands (Study 2c  $\alpha$  = .84; Study 2d  $\alpha$  = .71).<sup>5</sup> The measures of the resistance to social change and the acceptance of inequality were correlated across the studies conducted in the United States (combined sample r[475] = .39, p < .001; Study 2a r[113] = .56, p < .001; Study 2b r[106] = .28, p = .003; Study 2c r[123] = .53, p < .001) and were weakly, non-significantly, negatively correlated in the Netherlands sample (Study 2d r[125] = -.11, p = .23).

We measured legitimacy by building on several measures of system legitimacy used in the literature that tap into multiple components of legitimacy, including perceived fairness, possibility for advancement and confidence in the leaders. In Studies 2a, 2c and 2d, the dependent variable was a five-item measure of the perceived legitimacy of the unnamed society ( $\alpha = .95$ ). Three items were adapted from Kay and Jost's (2003) measure of system justification (e.g. 'In general, you find Country A to be fair'). Two additional items assessed how much participants want to live in the society and their confidence in the leaders of the society were also included ('I have confidence that the leaders in Country A will make the right decisions'). In Study 2b, two additional items based on the work of Major et al. (2007) were added to the measure of legitimacy regarding the possibility for advancement in the society ('Advancement in Country A is possible for all individuals.'). The scale was reliable in all of the samples (Study 2a  $\alpha$  = .95; Study 2b  $\alpha$  = .94; Study 2c  $\alpha$  = .95; Study 2d  $\alpha = .93$ ).<sup>6</sup> All of the items are in the Supporting Information.

Immediately after reading about the unnamed society, participants completed two manipulation checks. The first assessed perceived inequality of the society and read 'Country A is unequal'. To test whether our manipulation of inequality also influenced the perception that the target society resisted social change, we included a second social change manipulation check that read 'Country A is resistant to social change'.

<sup>&</sup>lt;sup>5</sup>An anonymous reviewer reminded us that the 16-item social dominance orientation scale used in Studies 2a and 2b is often found to have two factors, a group-based dominance and an opposition to equality factor (Jost & Thompson, 2000), the latter of which is most similar to acceptance of inequality. We conducted the analyses later with just the opposition to equality items in Studies 2a and 2b and found identical results. We did not conduct this exercise in Studies 2c and 2d because the four-item scale only has one factor (Pratto et al., 2013).

 $<sup>^{6}</sup>$ Some may inquire if the resistance to social change and the legitimacy items —many modified from system justification scales—are separate constructs. An exploratory factor analysis found two clear factors (Factor 1: 37.4% variance explained; Factor 2: 23.2% variance explained; all other factors: <5% variance explained). After oblimin rotation, the loadings of the pattern matrix showed a clean solution with all legitimacy items on one factor (loadings > 0.82) and all resistance to social change items on a second factor (loadings > 0.48), with no cross-loadings >|0.12|.



Figure 2. Means and 95% confidence intervals for the two manipulation check items in the equal and unequal experimental conditions.

#### **Results and discussion**

Studies 2a–2d followed a very similar methodology that was designed to test identical hypotheses across the studies. When looking across any given set of studies, there will be some variation in the size and perhaps direction of effects, but if an effect is robust, it should emerge across the studies on average (similar in logic to a meta-analysis; Schimmack, 2012). For example, our smallest individual sample (N = 108) has only 53% power to detect the difference between the conditions if the correlation in one condition is -.20 and in the other it is .20. The pooled sample, however, has a power of 99% to detect the same difference. To test our hypotheses, all analyses were conducted on the combined sample across all four studies. In all analyses, we included a factor indicating the specific study that a participant was from and used this as a moderator for the other predictors. This controls for participants nested within each study. The results were largely similar across studies (see subsequent analyses), and analyses of the individual studies are available in the Supporting Information.

#### Manipulation checks

We tested the manipulation with a 4 (Study Version: 2a–2d) × 2 (Societal Inequality: Equal vs. Unequal) × 2 (Manipulation Check Item: Perceived Inequality vs. Perceived Social Change) mixed analysis of variance where the latter factor was within participants. There were main effects of the manipulation check item (*F*[1, 467] = 23.15, p < .001,  $\eta_p^2 = 0.05$ ), the manipulation of societal inequality (*F*[1, 467] = 335.67, p < .001,  $\eta_p^2 = 0.42$ ) and Study Version (*F*[3, 467] = 3.85, p = .01,  $\eta_p^2 = 0.02$ ). These main effects were qualified by an anticipated significant two-way interaction between the manipulation check item and the manipulation

of societal inequality (F[1, 467] = 107.01, p < .001,  $\eta_p^2$ = 0.19), as well as a two-way interaction between Study Version and the manipulation of societal inequality (F[3, 467] = 8.00, p < .001,  $\eta_p^2$ = 0.05), and a three-way interaction between all of the variables (F[3, 467] = 10.23,  $p < .001, \eta_p^2$ 0.06). To better interpret this three-way interaction, the means and 95% confidence intervals for the combined sample, and the entire study can be found in Figure 2. This makes it clear that although the manipulation increased perceptions that 'Country A is resistant to social change'  $(M_{\text{more equal}} = 3.58, SD = 1.39; M_{\text{more unequal}} = 4.68, SD = 1.43,$ Cohen's d = 0.78), it more effectively increased perceptions that 'Country A is unequal' ( $M_{\text{more equal}} = 3.14$ , SD = 1.59;  $M_{\text{more unequal}} = 5.85, SD = 1.39$ , Cohen's d = 1.81). These results indicate that the manipulation was more dramatically influencing perceptions of societal inequality, and also affected perceptions of social change. As a result, all further analyses control for the resistance to social change manipulation check item so that the experimental conditions are statistically equivalent on the perception that the countries are resistant to social change.

#### Primary analyses

The primary hypotheses were tested using a 4 (Study Version: 2a-2d) × 2 (Societal Inequality Manipulation: Equal vs. Unequal) × continuous Resistance to Social Change × continuous Acceptance of Inequality Ordinary Least Squares regression analysis predicting legitimacy. The social change manipulation check was also included to adjust for the experimental manipulation's effect on the perception of the hypothetical society as changing. Study

<sup>&</sup>lt;sup>7</sup>The conclusions are the same when conducting identical analyses without including the social change manipulation check at a covariate.

version was contrast coded to highlight the relevant comparisons between the studies conducted in the United States compared with the Netherlands (U.S. vs. NL: Study 2a = 1, Study 2b = 1, Study 2c = 1, Study 2d = -3), Study 2a versus Study 2b and 2c (Study 2a = -2, Study 2b = 1, Study 2c = 1, Study 2c = 1, Study 2d = 0), Study 2b versus Study 2b = -1, Study 2d = 0). Societal inequality was contrast coded so that higher scores indicated more inequality (less unequal condition = -1, more unequal condition = 1). The three continuous measures were mean centred. The unstandardized coefficients, standard errors and 95% confidence intervals for all of the variables in the model can be found in Table 2.

Consistent with the results of Study 1 and our predictions, individual differences in the resistance to social change were a significant positive predictor of legitimacy (b = 0.22, SE = 0.06, p < .001) and did not interact with the experimental condition (b = 0.06, SE = 0.06, p = .28). Those who are high on resistance to social change perceived the existing system as more legitimate regardless

of the level of inequality in the system. Also consistent with Study 1, there was no main effect of individual differences in the acceptance of inequality (b = 0.05,SE = 0.05, p = .28). Instead, there was a significant interaction between the experimental condition and the acceptance of inequality (b = 0.26, SE = 0.05, p < .001). The societal inequality × acceptance of inequality interaction on legitimacy is highlighted in Figure 3. As predicted, when the society was more unequal, the acceptance of inequality was positively associated with legitimacy (b = 0.32, SE = 0.07, p < .001). Conversely, when the society was more equal, the acceptance of inequality was negatively associated with legitimacy (b = -0.23, SE = 0.07, p = .002). Notably, the two-way interaction between the resistance to social change and the acceptance of inequality, as well as the three-way interaction between the resistance to social change, the acceptance of inequality and the experimental condition, was not significant. None of the effect estimates reported earlier were moderated by any of the Study Version

Table 2. Studies 2a–2d: Complete model for the combined sample including the contrast codes that represent each study and its interaction with all of the predictor variables

	b	SE	95% CI low	95% CI high
Intercept	4.12	0.05	4.02	4.22
Experimental Condition	-0.79	0.05	-0.89	-0.68
Social Change Manipulation Check	-0.19	0.04	-0.26	-0.12
Acceptance of Inequality (AOI)	0.05	0.05	-0.04	0.15
Resistance to Social Change (RSC)	0.22	0.06	0.11	0.34
AOI × Condition	0.26	0.05	0.16	0.35
RSC × Condition	0.06	0.06	-0.05	0.18
$RSC \times AOI$	-0.04	0.05	-0.13	0.05
$RSC \times AOI \times Condition$	0.08	0.05	-0.02	0.17
U.S. vs. NL	0.13	0.03	0.07	0.18
Study 2 vs. Studies 3 and 4	0.09	0.04	0.004	0.18
Study 3 vs. Study 4	0.02	0.07	-0.12	0.16
Condition × U.S. vs. NL	0.10	0.03	0.04	0.15
$AOI \times U.S. vs. NL$	-0.02	0.03	-0.08	0.04
$RSC \times U.S. vs. NL$	0.02	0.04	-0.05	0.10
Condition $\times$ AOI $\times$ U.S. vs. NL	0.01	0.03	-0.05	0.06
Condition $\times$ RSC $\times$ U.S. vs. NL	0.04	0.04	-0.03	0.11
$AOI \times RSC \times U.S. vs. NL$	0.02	0.03	-0.05	0.09
Condition $\times$ AOI $\times$ RSC $\times$ U.S. vs. NL	-0.06	0.03	-0.13	0.004
Condition × Study 2 vs. Studies 3 and 4	-0.08	0.05	-0.18	0.01
AOI × Study 2 vs. Studies 3 and 4	-0.05	0.04	-0.13	0.03
RSC $\times$ Study 2 vs. Studies 3 and 4	-0.01	0.04	-0.10	0.07
Condition $\times$ AOI $\times$ Study 2 vs. Studies 3 and 4	-0.08	0.04	-0.16	0.001
Condition $\times$ RSC $\times$ Study 2 vs. Studies 3 and 4	0.07	0.04	-0.02	0.15
AOI $\times$ RSC $\times$ Study 2 vs. Studies 3 and 4	-0.04	0.03	-0.10	0.03
Condition $\times$ AOI $\times$ RSC $\times$ Study 2 vs. Studies 3 and 4	0.01	0.03	-0.05	0.07
Condition × Study 3 vs. Study 4	-0.11	0.08	-0.26	0.04
AOI × Study 3 vs. Study 4	0.03	0.06	-0.10	0.15
RSC $\times$ Study 3 vs. Study 4	-0.16	0.08	-0.32	0.0004
Condition × AOI × Study 3 vs. Study 4	0.05	0.06	-0.08	0.17
Condition $\times$ RSC $\times$ Study 3 vs. Study 4	-0.01	0.08	-0.17	0.15
AOI $\times$ RSC $\times$ Study 3 vs. Study 4	0.04	0.06	-0.08	0.16
Condition $\times$ AOI $\times$ RSC $\times$ Study 3 vs. Study 4	-0.06	0.06	-0.18	0.06
Manipulation check × U.S. vs. NL	-0.12	0.02	-0.16	-0.08
Manipulation check × Study 2 vs. Studies 3 and 4	-0.01	0.03	-0.07	0.05
Manipulation check × Study 3 vs. Study 4	-0.02	0.05	-0.12	0.08

*Note*: Boldface type highlights predicted main effect and two-way interaction. Contrast codes are named to highlight the comparisons that are being made: U.S. vs. NL (Study 2 = 1, Study 3 = 1, Study 4 = 1, Study 5 = -3); Study 1 vs. Studies 2 and 3 (Study 2 = -2, Study 3 = 1, Study 4 = 1, Study 5 = 0); Study 2 vs. Study 3 (Study 2 = 0, Study 3 = -1, Study 4 = 1, Study 5 = 0).





Figure 3. The effects of the acceptance of inequality in more and less unequal contexts on perceived legitimacy (Studies 2a–2d).

•Low Inequality (Combined)

High Inequality (Combined)

contrast codes, indicating that it is appropriate to combine the samples. $^{8}$ 

Additional analyses of Studies 2a-2c included participants' conservative identification, measured with one item ranging from 1 (strong liberal) to 7 (strong conservative). Study 2d did not include this measure. Conservative identification did not have a main effect association with legitimacy (b = 0.03, SE = 0.04, p = .45), nor did it interact with condition (b = 0.05, SE = 0.04, p = .20). The main effect of the resistance to social change (b = 0.23, SE = 0.07, p = .002) and the interaction between condition and the acceptance of inequality (b = 0.24,SE = 0.06, p < .001) remained significant, once again demonstrating that core motives these function independently of ideology.

These results support our prediction that individual differences in the resistance to social change and the

acceptance of inequality are differentially associated with legitimacy depending on the social contexts. For those high on resistance to social change, legitimacy is based on which system is currently in place regardless of how that system is economically structured. Conversely, for those high in acceptance of inequality, legitimacy maps onto the degree of perceived hierarchy in the social system, with more hierarchical systems garnering more perceived legitimacy and more egalitarian systems garnering less legitimacy. As a result, both those high in resistance to social change and the acceptance of inequality see unequal systems as legitimate, but only those high in resistance to social change perceive more equal systems as legitimate.

#### **GENERAL DISCUSSION**

Perceiving a social system as legitimate can be a powerful tool for assuaging a populace and perpetuating extant systems of power. In the present paper, we investigate the role of two individual differences, the resistance to social change and the acceptance of inequality, on perceptions of legitimacy. We proposed that the resistance to social change should predict legitimacy regardless of the hierarchical structure of the society (a main effect). Conversely, we predicted that the acceptance of inequality should only predict legitimacy in unequal systems but not in more equal systems (an interaction between the acceptance of inequality and the inequality of the system). Thus, the resistance to social change and the acceptance of inequality should both predict legitimacy when the system is unequal (as are most systems) and therefore would typically appear to be similar constructs. However, these two constructs should diverge when examining them in the context of more egalitarian societies.

Consistent with our predictions, we find that in unequal societies, the resistance to social change and accepting inequality both predicted legitimacy. However, in more equal societies, the effect of acceptance of inequality reversed. That is, in more equal societies, valuing inequality served as a system-challenging ideology, rather than a system-justifying ideology as it is typically defined (Jost & Hunyady, 2005). These results suggest that individual differences in the resistance to social change and the acceptance of inequality are distinct components of political ideology that predict legitimacy in different situations. Their apparent similarity and overlap in the literature may be because most prior studies examining these motives test them in the context of unequal systems where the outcomes of the two system-relevant individual differences are parallel. By testing their relative predictive power in more and less equal societies, it is possible to tease apart their unique and divergent effects.

The results of our studies suggest that right-wing political beliefs, in the form of the acceptance of inequality, are not necessarily associated with system legitimacy or the legitimization of the status quo in all social contexts. This is an important demonstration because heretofore this pattern of results has primarily been intuited via historical examples.

<sup>&</sup>lt;sup>8</sup>There were several additional, theoretically irrelevant effects. There was a main effect of the U.S. vs. NL (b = 0.13, SE = 0.03, p < .001) and the Study 2a versus Studies 2b and 2c (b = 0.09, SE = 0.04, p = .04) contrast codes, indicating that the studies conducted in the United States and Studies 2b and 2c in particular reported higher levels of legitimacy across conditions. There was also a large main effect for the experimental condition (b = -0.79, SE = 0.05, p < .001), indicating that people consistently saw the more equal society as more legitimate than the more unequal society. The main effect of the experimental condition was qualified by an interaction with the U.S. vs. NL contrast code (b = 0.10, SE = 0.03, p = .001), indicating that the effect of the experimental condition tended to be weaker in the United States (b = -0.69, SE = 0.07, p < .001) than in the Netherlands (b = -1.08, SE = 0.09, p < .001). Finally, there was a main effect of the social change manipulation check (b = -0.19, SE = 0.04, p < .001), which was qualified by an interaction with the U.S. versus NL contrast code (b = -0.12, SE = 0.02, p < .001), indicating that the manipulation check effect was significant and negative in the United States (b = -0.31, SE = 0.04, p < .001) but significant and positive in the Netherlands (b = 0.17, SE = 0.07, p = .02). Because these additional findings are not theoretically relevant for our purposes, we do not interpret them further.

For instance, Jost and colleagues (Jost et al., 2003a, pp. 385-386; Jost et al., 2009, pp. 184-185) have argued that the last wave of communist supporters in Eastern Europe before the fall of the Soviet Union may have been left wing in their political beliefs but 'right-wing' in their support for the status quo. Work on the epistemic and existential correlates of political ideology has generally supported this explanation (Kossowska & Van Hiel, 2003; Thorisdottir et al., 2007). Our work goes beyond these correlates to demonstrate that people with 'left-wing beliefs' (who are low on our measure of the acceptance of inequality) are more supportive of the social system (score higher on our measures of legitimacy) in more equal countries that support their view of how society should work. Consistent with the notion that right-wing beliefs should support the system, the resistance to social change did not differentially predict legitimacy depending on the inequality of the system. Because the acceptance of inequality and the resistance to change are both components of right-wing beliefs (Jost et al., 2003b), our findings both confirm the idea that rightwing beliefs are system legitimizing and also challenges the simple version of this idea by showing that at least for one component-acceptance of inequality-the relationship with legitimacy is much more variable across contexts.

## Strengths and limitations

Although our results largely support our predictions, they are not without limitations. First, Study 1 used a crosssectional design and thus cannot make any firm inferences about causality. Second, Study 1 used single-item measures of the primary constructs. Although these same items have been used to represent similar constructs in earlier research (Thorisdottir et al., 2007), single-item measures likely do not capture the full breadth of the constructs. Third, although the dataset in Study 1 has an impressive number of individual participants, there were few overall countries, and nearly all of these countries were more egalitarian than the world average (although their citizens do not always recognize them as such; Keller, Medgyesi, & Tóth, 2010). This may have made it difficult to observe the full potential of the predicted interaction, especially for those high in the acceptance of inequality who were expected to see unequal systems (which did not really exist in this sample of countries) as more legitimate. More work using data from a broader array of countries is necessary to further confirm and extend the results found in Study 1.

Despite these limitations, it is also important to highlight the strengths of this study. We were able to analyse representative data from a number of different countries, allowing us to generalize beyond just North American student samples (Henry, 2008). Our results were also not dependent on people's perceptions of inequality in their society—perceptions that are often in error (Norton & Ariely, 2011). We, instead, relied on objective measures of inequality and people's lived experiences and found the predicted effects.

Study 2 was designed to address many of the limitations of Study 1 while replicating Study 1's primary findings. Specifically, the latter study introduced an experimental manipulation of inequality and more robust measures of the primary constructs. The primary results of this experimental study replicated patterns found in the international study and supported our hypotheses. By replicating our predicted effects using an experimental paradigm, we were better able to test the interrelationships between the underlying dimensions of political ideology and the structure of the existing system. In addition, by replicating the overall pattern across four distinct samples from two different countries, we can be confident that these effects are fairly robust. A drawback of this approach is that our results are limited to the specific paradigm that we adopted in this experiment; however, we believe that this is a valid trade-off in order to provide a test of these two components of political ideology across different systems of equality. Additional research can expand on the theoretical principles supported by our work.

# The future of examining ideology as two (or more) dimensions

More broadly, these results suggest that individual differences in the resistance to social change and the acceptance of inequality are not redundant and should serve as separate predictors for future hypotheses about people's support for the social system, legitimacy and social policy. Other work in political psychology has treated ideology as multi-dimensional. The most popular (and fruitful) of this work, the dual process motivational model, has adopted right-wing authoritarianism and the acceptance of inequality as the two key dimensions (for a review, see Duckitt & Sibley, 2009). Importantly, although this work bears some similarity to our work, one key distinction is that *both* dimensions in the dual process model have political content. In fact, the right-wing authoritarianism scale has sustained criticism for its clear overlap with religious, conservative and prejudicial content (e.g. Brandt & Henry, 2012; Feldman, 2003; Feldman & Stenner, 1997; Mavor, Macleod, & Boal, 2009; Mavor, Louis, & Laythe, 2011; Oesterreich, 2005; Stenner, 2005; Van Hiel, Cornelis, Roets, & De Clercq, 2007). We may find similar interaction patterns as those found in our studies between the societal context and right-wing authoritarianism. For example, right-wing authoritarianism may only predict legitimacy when the government clearly supports conventional, religious values and not when the government supports more secular and progressive social values (cf. Crawford et al., 2015; Roets, Au, & Van Hiel, 2015).

In general, we propose that it should be considered best practices to use individual differences in both of the dimensions identified here (resistance to social change and acceptance of inequality) to capture the complexities of perceived system legitimacy across equal and unequal social contexts. Because these two factors are (i) conceptually distinct and (ii) are correlated, it is not possible to make clear claims about one construct without controlling for the other. Such a framework builds on existing theoretical traditions that have variously identified the resistance to social change and/or the acceptance of inequality as core motives for perpetuating inequality (Jost et al., 2004; Sidanius & Pratto, 1999). By taking a broader, multi-dimensional view of ideology (vs. the traditional one-dimensional conceptualization), it is possible to see how these two motives can fit together as well as diverge, and allow us to make unique predictions about when and why they will overlap or diverge. It also suggests that when studying the association between the resistance to social change, the acceptance of inequality and system legitimacy (and related topics) in an unequal context, it is important to demonstrate what dimension of ideology, in particular, is driving an effect. For example, demonstrating that a specific type of stereotyping or essentialist belief system is associated with the resistance to social change is not enough as it could just as easily be driven by an acceptance of inequality-related motives.

We also found that the effects of resistance to social change and the acceptance of inequality were independent from ideological identification. In Study 1, the effects of ideological identification paralleled, but were also independent from, the resistance to social change. In Study 2, no effects of ideological identification emerged. These additional results of our study further highlight that it is fruitful to consider the multi-dimensional nature of political ideologies. Not only are the resistance to social change and the acceptance of inequality statistically independent of ideological identification, but they also emerge as important predictors where ideological identification does not.

Our perspective also highlights potentially fruitful future directions in research on ideological motives and system justification. For example, in some contexts, the two ideological dimensions may conflict. As an illustration, imagine an egalitarian in an unequal social context who is also resistant to social change. The egalitarian, on the one hand, disagrees with the system at large but, on the other, opposes large-scale social changes. This could lead to psychological conflict and ambivalence about the social system, or it could lead to other strategies to reduce psychological conflict, such as emphasizing one motivation over the other. These types of research questions emerge when one considers these two different dimensions of political ideology.

The finding that resistance to social change and the acceptance of inequality can serve as independent predictors of legitimacy under different contexts also has implications for how social scientists think about social change. Much of the theory and research on social change have focused on changes that increase equality or redress the impoverished situation of disadvantaged and low-status groups (for just one example, see van Zomeren, Leach, & Spears, 2012), suggesting that social change is about egalitarian outcomes and increasing fairness. However, our work here suggests that people may be in favour of social change (i.e. low on the resistance to social change measure) and supportive of inequality. For individuals in this category, social change will likely be in the service of increasing inequality and maintaining hierarchical distinctions in society. Therefore,

although social change is often associated with egalitarian outcomes, social change seen from the light of an acceptance of inequality motive can be associated with unequal outcomes and can help explain geopolitical movements that often confound Westerners. One potentially challenging test for models of social change will be the ability to effectively account for social change in both egalitarian and hierarchical directions.

## Conclusion

The current paper distinguishes between two individual differences related to political ideology that differ in their effects depending on the societal status quo. The results of the current studies demonstrate that it is possible to disentangle these two unique individual differences when societies with varying degrees of inequality are examined. Although the resistance to social change and the acceptance of inequality may both lead to legitimacy in unequal systems, the two dimensions of ideology have divergent effects in more equal societies. Moreover, it appears that legitimizing the social system is not inevitable, but rather people legitimize the social system when it matches their goals. In combination, these results suggest that research on legitimacy should focus on values related to conserving the status quo and maintaining inequality as unique motivators of legitimacy that vary in their predictive strength depending on characteristics of the individuals and the system in question. Although this is only the first step to a more nuanced model of political ideology, individual differences and legitimacy, it provides an important perspective that can guide future theoretical and empirical research.

## SUPPORTING INFORMATION

Additional Supporting Information may be found online in the supporting information tab for this article.

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