Testing the status-legitimacy hypothesis: A multilevel modeling approach to the perception of legitimacy in income distribution in 36 nations

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Abstract

The status-legitimacy hypothesis was tested by analyzing cross-national data about social inequality. Several indicators were used as indexes of social advantage: social class, personal income, and self-position in the social hierarchy. Moreover, inequality and freedom in nations, as indexed by Gini and by the human freedom index were considered. Results from 36 nations worldwide showed no support for the status-legitimacy hypothesis. The perception that income distribution was fair tended to increase as social advantage increased. Moreover, national context increased the difference between advantaged and disadvantaged people in the perception of social fairness: contrary to the status-legitimacy hypothesis, disadvantaged people were more likely than advantaged to perceive income distribution as too large and this difference increased in nations with greater freedom and equality. The implications for the status-legitimacy hypothesis are discussed.

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"Any city, however small, is in fact divided into two, one the city of the poor, the other of the

rich; these are at war with one another."

(Plato, The Republic, Book IV)

The so-called "status-legitimacy" hypothesis (Brandt, 2013) posits that low-status group members may justify their social system even more than members of high-status groups. This counter-intuitive idea derives from an integration of cognitive dissonance theory (Festinger, 1957) and System Justification Theory (SJT, Jost & Banaji, 1994), and rests on the fact that disadvantaged people would experience strong ideological dissonance between the desire to see their social system as just and fair and the motivation to justify the social position of their own group and themselves. In Jost, Pelham, Sheldon, and Sullivan's (2003) words, "those who suffer the most also have the most to explain, justify, and rationalize" (p. 16)". According to SJT, disadvantaged more than advantaged people would solve this dissonance by increasing the belief that the social system is just and that their ingroup deserves a disadvantaged position. The result of this dissonance-reduction process is that disadvantaged people, going against their personal and group interests, might justify the system to an even greater extent than advantaged people.

The status-legitimacy hypothesis has received some empirical support. For example, Jost et al. (2003) found that low-income Latinos were more oriented than high-income Latinos to believe that the US government was acting for the benefit of all and did what was right (Study 2). Study 3 indicated that the lower the income of US participants, the higher the belief that large differences in income were necessary to get people to work hard. Moreover,

research by Henry and Saul (2006) evidenced that a low-status group of indigenous Colombians were favorable to suppressing the dissent against government, and supported the government's actions more than an intermediate-status group of Mestizo and a high-status group of Hispanics. More recently, Sengupta et al. (2015) found partial support for the status-legitimacy hypothesis, showing that disadvantaged Asian and Pacific groups in New Zealand (but not a disadvantaged Maori group) showed higher ethnic system justification than an advantaged European group. More indirectly, Van der Toorn et al. (2015) recently showed that people with feelings of powerlessness were more likely to perceive the economic system as legitimate and to increase the justification of the social system than people with feelings of powerfulness.

Several other examples of evidence were unsupportive, and even contrary (e.g., Lee, Pratto, & Johnson, 2011), to the status-legitimacy hypothesis. For example, Caricati and Lorenzi-Cioldi (2012) used a large cross-national database and showed that system justification increased as social advantage, at both individual and national levels, increased. Moreover, individual and national advantages interacted with each other so that wealthy people in wealthy nations were the most supportive of the social system. In a similar vein, Brandt (2013), through different large surveys in the USA and other countries worldwide, and considering trust in and confidence with different social institutions, such as the government, the police and the banks, demonstrated that advantaged people were as supportive for the social system as disadvantaged were and that, in several cases, advantaged people were even more oriented to justify the system than disadvantaged people. Furthermore, Sengupta et al. (2015) also found no evidence of higher political justification among the disadvantaged.

Several explanations have been proposed to solve these contrasting examples of evidence. Brandt (2013) overtly suspected that the evidence in support of the status-legitimacy hypothesis was due to random variation in effect size, meaning that the status-

legitimacy hypothesis lacks consistency. Sengupta et al. (2015), instead, suggested that the status-legitimacy hypothesis would only emerge when justification is measured as the fairness of a specific social arrangement. In this sense, the authors affirmed that some measures of system legitimacy, such as the support of authoritarian governments (e.g., Jost et al., 2003; Henry & Saul, 2006), are not genuine manifestations of the dissonance-reduction mechanism, but simply a reflection of processes which are linked to acquiescence to authority, especially in nations with high inequality. On the other hand, Sengupta et al. (2015) speculated that cognitive dissonance may arise from the competing cognition that the social system should be fair and the evidence that some inequalities exist. Thus, in order to solve this dissonance, people may increase the belief that those inequalities are just and fair. In this sense, according to Sengupta et al. (2015), evidence of the dissonance-reduction mechanism only appears when the "legitimation of the specific hierarchies relevant to the status dimension being analyzed (i.e., dimension-specific legitimation)" (p. 5) is taken into account. Accordingly, Sengupta et al. (2015) showed that low-status ethnic groups (Asians and Pacific Islanders) perceived ethnic status differences as fair, to a greater extent than high-status Europeans, while they showed the same level of general system justification as Europeans (incidentally, a low-status ethnic group of Maori showed the same levels of fairness of ethnic relations than Europeans and the lower levels of general system justification).

This is somewhat consistent with Zimmerman and Reyna's (2013) argument that it is necessary to distinguish between prescriptive (i.e., the belief about how things should be) and descriptive (i.e., the belief about how things are) aspects of ideology. Accordingly, high- and low-status people may agree with how a society should be, but not necessarily with how society is. Results from Zimmerman and Reyna (2013) indicated that low-status people were more likely to perceive discrepancies between the prescriptive and descriptive aspects of a social system, and to be more dissatisfied with the American system. Albeit that these results

appear to be an indirect evidence against the status-legitimacy hypothesis, it is worth noting that perceived discrepancy between prescriptive (just and legitimate system) and descriptive aspects (the existence of inequalities) of the social system may also be seen as favoring ideological dissonance among disadvantaged people. According to the status-legitimacy hypothesis, one could expect that this discrepancy might increase dissonance and lead disadvantaged people to increase their belief that inequalities are fair.

The present study

I agree with Sengupta et al.'s (2015) and Zimmerman and Reyna's (2013) arguments about the measurement of the descriptive aspect of a specific social arrangement (i.e., fairness of a hierarchy in a specific dimension). I would like to add that the support of government is not indicative of a system justification process. Governments choose the kind of policy they want and this can favor either disadvantaged or advantaged groups. Thus, if a government is acting in order to decrease inequality, even though inequality still exists, it is not surprising that disadvantaged people support the government more than advantaged groups, or vice versa. Thus, although trust in government can certainly be an index of perceived legitimacy, it does not necessarily reflect an outcome of system justification process. In other words, policies of national governments are highly variable, ideologically oriented, temporally limited, and historically rooted, making the use of government support as a measure of system justification in itself and as evidence of different system justification levels among social groups dubious. For this reason, in the present paper, support for government will not be taken into account as a proxy of system justification.

The idea that the status-legitimacy hypothesis should be more likely to be observed when the existing fairness of a specific dimension is taken into account has not yet been investigated thoroughly. Accordingly, the aim of this paper was to test the status-legitimacy hypothesis on a descriptive (Zimmerman & Reyna, 2013) and specific (Sengupta et al., 2015)

dimension of social fairness and using a large representative cross-national survey. As a proxy of the perceived fairness of the system, I considered people's perception that differences in income within a country were too large. This measure taps into people's perception of fairness or legitimacy that refers to a descriptive aspect of society (what are the differences in income) and in comparative terms (i.e., income differences are *too* large or not). This point mirrors the definition of legitimacy as something that is perceived as being in accord with the way things ought to be (Zelditch, 2001; 2006). Thus, to believe that differences in income are *too* large means that those differences are perceived as contravening the desired rules, in short, they are illegitimate and unfair.

I considered several proxies of social advantage at the individual level. Firstly, I considered people's perception of their rank in the social hierarchy (from bottom to top). Secondly, I considered the social class to which people felt they belonged. Thirdly, I considered the objective personal income of the respondents. Although the latter measure is directly linked to the fairness of income distribution, self-placement on the social hierarchy and social class are also linked to the wealth of the individual (e.g., Beeghley, 2007; Gilbert, 2002). Thus, all of these proxies of status can be considered as relevant for the perception of the legitimacy of income distribution. According to the status-legitimacy hypothesis, it was expected that perceived fairness would increase as social advantage decreased. In other words, according to the dissonance-reduction hypothesis, disadvantaged people would perceive dissonance between the motive for a fair social system and the perception that they are in an unfair or disadvantaged position. In order to restore congruence, they might increase the belief that differences in income are fair.

Given that the national contexts in which people live vary significantly, and that these differences may affect legitimation processes (see Jost et al., 2003), similarly to Brandt (2013) and Caricati and Lorenzi-Cioldi (2012), I also considered some national indicators which are

relevant for ideological dissonance, namely the human freedom index (HFI), and the Gini index. HFI is a measure of the general freedom of citizens and it is based on several indexes, such as freedom of speech, freedom of religion, individual economic choice, violence and crime rates, freedom of movement, and women's rights (see McMahon, 2012; Vásquez & Štumberger, 2012). Gini, on the other hand, is an index of inequality of the income distribution inside a nation, so that the higher the national Gini is, the lower national equality is. According to Sengupta et al. (2015) and Jost et al. (2003), HFI and Gini should affect the extent to which people perceive the social system as fair. Firstly, Jost et al. (2003) speculated that dissonance should be stronger in contexts in which people feel they have choice about their outcomes, compared to contexts in which outcomes are seen as imposed. Thus, a dissonance-reduction mechanism should be more likely to appear in nations in which HFI is higher. Secondly, given that dissonance is expected to be elicited by inequality, the status-legitimacy pattern is expected to be more likely to appear in unequal than in equal nations[1] (see also Sengupta et al., 2015).

In brief, I expected to find that disadvantaged people (in terms of their rank in the social hierarchy, social class and personal income) would perceive the difference in income in their nation as more fair than people in advantaged positions (hypothesis 1). Moreover, I expected that the above trend would be stronger in more free and in less equal nations (hypothesis 2). I tested these hypotheses using a large cross-national survey about social inequality carried out in 2009 by the International Social Survey Program (ISSP).

Method

Participants

The ISSP database contains 55,238 questionnaires that have been collected in 40 countries worldwide. For the current research, 1,179 questionnaires were excluded because of

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[1] It is worth noting that Brandt (2013) also considered national indicators of inequality (i.e., Gini index) and civil liberties, and found no support for the status-legitimacy hypothesis.

missing values in the measure of perceived fairness. Moreover, social class was not collected

in France, Austria, and the Philippines, and so these nations were excluded from the analyses.

Taiwan was also excluded because the Gini index was not available. The analyzed sample

was then composed of 38,967 participants in 36 nations (mean age = 46.62, *SD* = 16.91, range

= 15-98, 56 participants did not indicate age) of which 17614 (45%) were men and 21332

(55%) were women (21 participants did not report his/her sex). Table 1 reports descriptive

statistics for each country.

--- Insert table 1 about here ---

Measure

Perceived social fairness was measured with one item from the ISSP database asking

participants to indicate the extent to which they believed that differences in income in their

country were too large, on a 5-point Likert scale (1 = strongly agree, 5 = strongly disagree). In

this way, higher scores indicated higher perceived fairness in national income distribution.

Social advantage at individual level was operationalized considering three different

indicators. More precisely, indicators were: a) respondents' self-placement in their social

hierarchy on a scale from 1 = bottom to 10 = top; b) the social class which respondents

indicated they belong to (1 = lower class, 2 = working class, 3 = lower middle class, 4 =

middle class, 5 = upper middle class, 6 = upper class), and c) the personal income. Regarding

the latter, ISSP collected individual income in national currency and, as a result, incomes

were not directly comparable across countries. For this reason, for each country, income was

transformed into deciles, in order to have ten groups in each country that were comparable

across nations.

National indicators. For each nation, the human freedom index (HFI), and the Gini

index were collected. HFI ranges from 0 to 10 with higher values indicating more free

nations. HFI values were taken from the CATO institute's database. Gini index was taken

from the World Bank's database, except for Korea which was taken from Cheon et al. (2013).

Gini ranges were from 0 to 100, with lower values indicating more equal nations.

Analysis strategy

In order to test the hypotheses, multilevel modelling (MLM) was used. Before the

analysis was performed, all predictors and the dependent variable were rescaled to range from

0 to 1 in order to increase readability of effects. Country was the nesting level-2 variable, and

top–bottom self-placement in the social hierarchy, social class and personal income (all

country-mean centered) were the level-1 predictors. Moreover, Gini and HFI indexes (grand-

mean centered) were added to the model as level-2 predictors. Interaction effects between

level-1 and level-2 predictors, along with their direct effects, were tested.

First, the null model (i.e. a model without predictors) was tested in order to assess

whether countries accounted for a significant portion of variance in perceived fairness of

income distribution. Results indicated that countries accounted for 14% of variance and

random variation in perceived fairness across countries was significant, $\chi^2 (2) = 5{,}252.33$, $p <$

.001, supporting the use of MLM (see table 1).

<div align="center">Results</div>

Preliminarily analysis

First, zero-order correlations among considered variables were analyzed (Table 2). As

indicated, all status indicators (level-1) were positively and significantly correlated with each

other, even though coefficients were generally low in magnitude. This suggests that indicators

form a relatively coherent set of social advantage proxies, but they do not overlap each other,

allowing for their simultaneous entering in the MLM model. Moreover, all status indicators at

individual level were positively and significantly correlated with the perceived fairness in

income differences.

<div align="center">--- Insert table 2 about here ---</div>

Hierarchical modelling

The results of the estimated MLM are shown in table 3[2]. As indicated, all level-1 predictors had significant and positive effects on the perceived fairness of income distribution, and 95% confidence intervals confirmed that estimations were different from zero[3]. This means that, contrary to hypothesis 1 and the status-legitimacy hypothesis, advantaged people believed that differences in income were fair to a greater extent than disadvantaged people.

For Level-2 predictors, Gini showed no significant direct effects on perceived fairness, while HFI had a significant and positive effect, suggesting that the perceived fairness of differences in income tended to be higher in more free nations.

Furthermore, significant interactions between level-1 and level-2 predictors appeared. More precisely, Gini and HFI interacted with top–bottom self-placement, social class, and personal income, as expected. However, interactions were not in the hypothesized direction (see figure 1). Indeed, HFI increased the perception of fairness in advantaged people, so that the difference between disadvantaged and advantaged people was higher in more free nations than in less free nations (see figure 1, panel a). This indicated that advantaged people were generally more likely to perceive that differences in income were just than disadvantaged people were, and this difference increased as the freedom of nations increased. In the same way, Gini increased the effect of level-1 predictors, so that advantaged people perceived income distribution as fairer than disadvantaged people did, to the extent that their nation was fair

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[2] As suggested by anonymous reviewer, I performed the same analysis considering also gender, age and level of education as covariates. Results indicated that men ($p < .001$), younger people ($p < .001$) and, marginally, less educated people ($p < .10$) perceived the income distribution as fairer than women, older people and more educated people. However, other results were unchanged and the results without covariate are reported and discussed.

[3] An anonymous reviewer suggested to consider a single composite measure of status. Accordingly, I built a single latent dimension of social status using factor analysis. This latent dimension of status was then entered in a new MLM. Results were identical, indicating that perceived fairness increased as status ($b = 0.05$, $SE = 0.001$, $p < .001$) and HFI ($b = 0.130$, $SE = 0.063$, $p < .05$) increased. Gini was not significant ($b = 0.062$, $SE = 0.071$, $p = .872$). Moreover, status X HFI interaction was positive and significant ($b = 0.058$, $SE = 0.006$, $p < .001$), while status X Gini interaction was negative and significant ($b = -0.064$, $SE = 0.007$, $p < .001$). Given that results were substantially identical, I considered the three indicators of status separately in order to preserve as much information as possible.

(remember that low values of Gini indicate more equal nations). In other words, contrary to the idea that cognitive dissonance might be stronger among disadvantaged people living in unequal nations, advantaged people were generally more supportive of their social system than disadvantaged people and this difference was larger in equal than in unequal nations (see figure 1, panel b).

--- Insert table 3 and figure 1 about here ---

Discussion and conclusion

This work aimed to test the status-legitimacy hypothesis by considering the perceived fairness of a specific dimension of social inequality (i.e., the perception that income differences in nations are too large), and the different proxies of social advantage at both individual and national levels. Using data from 2009 ISSP coming from 36 nations, results showed no evidence of the status-legitimacy hypothesis. Indeed, people with higher rank in the social hierarchy, belonging to higher social classes and with higher incomes were more likely to believe that differences in income were fair (i.e., not too large) than people occupying lower ranks in the social hierarchy, belonging to lower social classes and with lower incomes. These results are congruent with findings from Caricati and Lorenzi-Cioldi (2012) and Brandt (2013), and are unsupportive of the idea that there is a competing desire to see the social system as fair so that the evidence that inequality exists would produce ideological dissonance in disadvantaged people and an increase in the belief that such differences are fair. On the contrary, present results seem to suggest that advantaged people are more oriented to perceive social inequality as fair than disadvantaged people.

Results also indicated that the above trends are enhanced by national context, in particular, by the level of national inequality and national freedom. According to Jost et al. (2003) and Sengupta et al. (2015), it was hypothesized that ideological dissonance would be higher when people can choose their outcomes (i.e., in a nation with more individual

freedom), and in a nation with higher inequality. Contrary to the hypothesis that disadvantage would increase the belief that the system is fair to the extent that the country is more unequal and more free, present results evidenced that the differences in social fairness perception between the advantaged and the disadvantaged increased in more equal and free nations. In other words, present findings suggest that, overall, high-status people perceive higher social fairness, and this is more likely to be observed when the country in which they live is more equal and allows for greater individual freedom. Moreover, this evidence contrasts with the idea of a dissonance-reduction mechanism among low-status people.

Taken together, the results indicated that the higher the social advantage (measured with different indicators, such as people's placement of the self on the social hierarchy, social class, and personal income) the higher the perception that social inequalities are fair. Moreover, the pattern of results seems to indicate that disadvantaged people are more likely to oppose or at least react against social inequality or, at best, that they are aware of the existence of unjust social differences. These pieces of evidence are in line with those supplied by other research (e.g., Brandt, 2013; Caricati & Lorenzi-Cioldi, 2012; Hadler, 2005) and with a vision that dominant groups are more likely to endorse the belief that the social system is just and fair. This is also consistent with Zimmerman and Reyna's (2013) results, indicating that low-status group members perceived a higher discrepancy between the desired and actual system and, for this reason, were less satisfied about the social system.

Limitations

This work, as with all correlational studies, does not permit the inference of a causal relationship among variables. So, we are prevented from affirming that social advantage produces higher perceptions of social fairness. For the same reason, this work does not prove that disadvantaged people do not show support for their social system. However, present results highlight that social advantages and perception of increased fairness co-occur.

According to Brandt (2013), this co-occurrence does not support the status-legitimacy hypothesis. I do not affirm that disadvantaged people never support the social system nor that people with low status never go against their self and group interests. This aspect remains a topic that must be further analyzed in order to find conditions and psychological motives for which disadvantaged people may increase the belief that they deserve their social disadvantage. Present results, however, suggest that this evidence is not so easy to detect. Indeed, although there are limitations due to correlational design, there are several aspects which make the association between social advantage and higher fairness strong and reliable. First, the wide sample size and the cross-national nature of the data assure the statistical power of the results. Second, 95% confidence intervals evidenced that significant effects were significantly different from zero. These two aspects suggest that the presented results can be considered accurate and that they are a real estimation of the actual effects.

Conclusion

In this research, I have shown that advantaged people living in more equal and free nations are more likely to believe that differences in income are fair in comparison with disadvantaged people living in more unequal and less free nations. Overall, these results suggest that perceiving the social system as fair is easy when people are in favorable social positions and contexts. This does not run counter to the SJT idea that people are motivated to rationalize and justify their social system (Jost & Banaji, 1994; Jost et al., 2003; Jost & Kay, 2005), suggesting, however, that rationalizing inequality is easy when system-, group-, and self-justification motives are more congruent than conflicting.

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Table 1. Descriptive statistics for considered variables according to countries.

Country	N	Fairness of income distribution	Social Class	Top-bottom	Personal Income (deciles)	Gini	HFI[a]
Argentina	926	1.75	3.12	4.94	5.50	45.27	7.21
Australia	1302	2.08	3.42	5.86	5.50	35.60[a]	8.68
Belgium	1027	2.13	3.39	5.85	5.50	28.70	8.29
Bulgaria	656	1.50	2.47	3.75	5.50	33.82	7.88
Chile	1121	1.82	2.51	3.98	5.50	52.00	8.38
China	2921	1.73	2.62	4.60	5.50	42.60[a]	5.66
Croatia	857	1.51	3.50	4.55	5.50	33.18	7.34
Cyprus	752	2.26	3.83	5.54	5.50	32.11	8.44
Czech Republic	951	1.68	3.20	4.80	5.50	26.18	8.24
Denmark	1395	2.41	3.61	5.81	5.50	28.84	8.69
Estonia	911	1.44	3.13	4.96	5.50	31.59	8.42
Finland	770	2.12	3.38	6.52	5.50	27.47	8.67
Germany	1174	1.64	3.43	5.67	5.50	31.51	8.34
Hungary	865	1.27	2.78	4.01	5.50	26.97	8.04
Iceland	866	1.68	3.70	5.86	5.50	28.74	8.22
Israel	998	1.70	3.42	5.45	5.50	41.20[b]	7.41
Italy	912	1.40	3.41	4.61	5.50	33.66	8.05
Japan	1154	1.88	3.19	4.67	5.50	32.10[a]	8.13
South Korea	950	1.67	3.37	4.61	5.50	31.10	8.18
Latvia	790	1.49	3.04	4.44	5.50	34.83	8.01
New Zealand	852	2.31	3.58	5.96	5.50	33.10	8.92
Norway	1256	2.48	3.64	6.13	5.50	26.39	8.62
Poland	1126	1.62	3.02	5.25	5.50	33.58	7.99
Portugal	571	1.41	2.58	4.52	5.50	34.91	8.11
Russia	1392	1.45	3.02	4.55	5.50	39.69	6.46
Slovak Republic	972	1.46	3.14	4.81	5.50	26.02	8.22
Slovenia	754	1.45	3.26	4.88	5.50	24.83	7.83
South Africa	2723	1.64	2.77	4.81	5.50	63.00[a]	6.58
Spain	669	1.81	2.99	5.01	5.50	35.39	7.98
Sweden	972	2.08	3.54	5.95	5.50	26.61	8.15
Switzerland	920	1.80	3.66	5.72	5.50	32.96	8.79
Turkey	1052	1.55	2.87	4.04	5.50	38.97	6.71
Ukraine	1526	1.26	2.71	3.40	5.50	25.32	6.57
Great Britain	845	2.02	2.97	5.22	5.50	34.67	8.17
USA	1415	2.24	3.11	5.77	5.50	46.90	8.38
Venezuela	624	2.19	2.44	5.41	5.50	39.28	5.24

a = refers to 2008, b = refers to 2007

Table 2. Zero-order correlations and descriptive statistics for considered level-1 predictors

		1	2	3	4
1. Perceived fairness		-	.24**	.18**	.08**
2. Person (top-bottom)			-	.46**	.24**
3. Social Class				-	.21**
4. Personal Income					-
	M	1.78	5.02	3.13	5.50
	SD	0.90	1.85	1.15	2.87

** *p* < .001

Table 3. Results of multilevel modelling on perceived fairness of income distribution in country

	B	SE	t	95%CI
Intercept	0.191	0.014	31.776***	0.169 – 0.214
Level 1				
Top-bottom self-placement	0.117	0.007	17.646***	0.106 - 0.127
Social Class	0.075	0.006	13.287***	0.066 - 0.084
Personal income	0.022	0.003	6.550***	0.017 - 0.028
Level 2				
Gini	0.062	0.071	0.872	-0.052 - 0.176
HFI	0.130	0.064	2.043*	0.028 - 0.231
Level 1 x level 2				
Top-bottom X Gini	-0.144	0.024	5.945***	-0.185 - -0.105
Top-bottom X HFI	0.051	0.025	2.009*	0.009 - 0.092
Social class X Gini	-0.114	0.021	5.377***	-0.150 - -0.080
Social class X HFI	0.146	0.022	6.567***	0.109 - 0.182
Income X Gini	-0.044	0.015	3.013**	-0.069 - -0.020
Income X HFI	0.076	0.014	5.227***	0.052 - 0.099

*** $p < .001$; ** $p < .01$, * $p < .05$

HFI = Human freedom index.

Figure 1. Interaction effect between level-1 and level-2 predictors
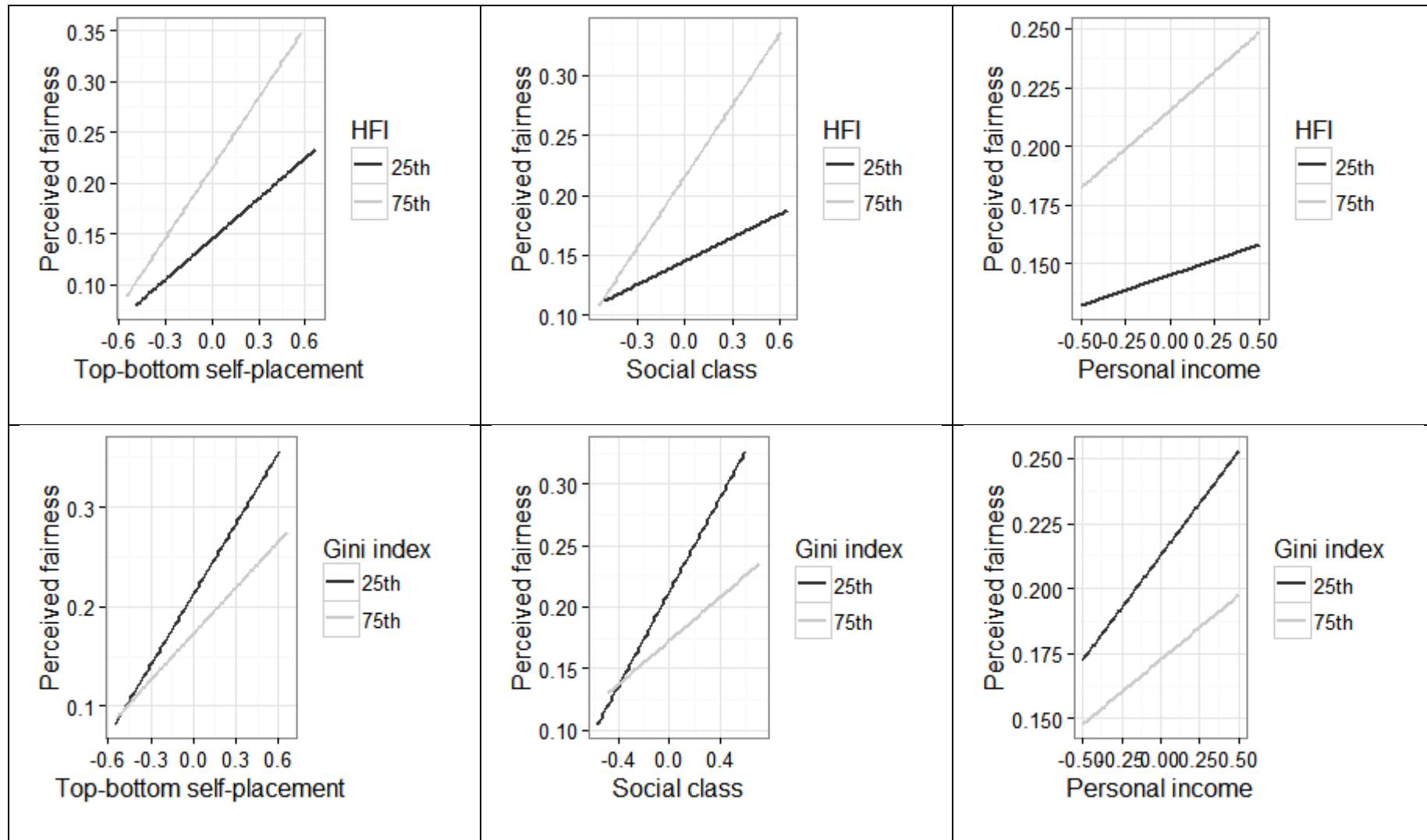
Note: Gini and HFI are shown at 25th and 75th percentiles